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AC. 11

MINISTRY OF THE INTERIOR, EGYPT.

DEPARTMENT OF PUBLIC HEALTH.

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OF SCIENTIFIC RESEARCH.

# ANNUAL REPORT

FOR

1917.



CAIRO.

GOVERNMENT PRESS.

To be obtained, either directly or through any Bookseller, from the GOVERNMENT PUBLICATIONS OFFICE,  
Old Ismailia Palace, Sharia Qasr el Aini, Cairo.

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# ANNUAL REPORT.

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## INTRODUCTORY NOTE.

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The Annual Report for 1917 is again but a summary of the year's work of the different Sections of this Department.

The strain of war conditions was very severely felt, but every effort was made, despite a restricted Budget, not only to carry on the duties of this Department *vis-à-vis* the civilian population of Egypt, but also to afford the fullest aid to the Military Authorities. Although the cost of maintenance in hospitals was heavier, the same tariff was continued for Military cases: P.T. 17·5 per head.

Advantage was taken largely by the Military Authorities of our Analytical, Chemical, and Bacteriological Laboratories staff. Steady progress is being made in the Water Service. Wells and water supplies are registered, charted, and described; this branch of the Service will be one of the first to be developed after the war, or when funds permit. An increase of the staff as soon as possible, in practically every branch of the Department, is imperative.

A more liberal Budgetary Allowance is proposed for 1918.

CATHCART GARNER (Colonel),  
*Acting Director-General.*



## I.—REPORT ON SECTION I.

### 1.—VITAL STATISTICS.

The most noteworthy event bearing on this branch of the work which took place during the year was the taking of the Census of the population of the country. This was done in March under the control of the Statistical Department of the Ministry of Finance.

The usual statistical tables concerning the births and deaths of Egyptians and Foreigners are given below :—

TABLE I.—EGYPTIAN AND FOREIGN POPULATION OF THE TWENTY PRINCIPAL TOWNS OF EGYPT.

T O W N .	ESTIMATED UP TO JULY 1.			
	1916 (on the basis of the Census of 1907).			1917 (on the basis of the Census of 1917).
	Egyptians.	Foreigners.	Total.	Total.
Cairo ... ..	665,000	75,000	740,000	753,800
Alexandria... ..	327,000	79,000	406,000	442,500
Damietta ... ..	36,000	269	36,269	31,200
Tanta ... ..	57,000	1,523	58,523	74,200
Mansûra ... ..	43,000	1,638	44,638	49,100
Damanhûr ... ..	46,000	372	46,372	40,200
Zagazig ... ..	37,000	1,691	38,691	41,000
Shibîn el Kôm... ..	26,000	182	26,182	24,100
Gîza ... ..	18,000	114	18,114	19,000
Benha ... ..	20,000	221	20,221	19,000
Port Said ... ..	51,000	11,000	62,000	76,100
Suez ... ..	18,000	2,551	20,551	33,900
Ismailia ... ..	12,000	2,000	14,000	14,000
Faiyûm ... ..	42,000	178	42,178	44,200
Beni Suef ... ..	31,000	428	31,428	31,900
Minya... ..	30,000	433	30,433	35,000
Asyût ... ..	44,000	280	44,280	51,000
Sohâg ... ..	20,000	67	20,067	21,900
Qena ... ..	21,000	72	21,072	23,000
Aswân... ..	13,000	704	13,704	11,000
TOTAL ... ..	1,557,000	177,723	1,734,723	1,836,100



TABLE II.—BIRTHS, DEATHS, AND INFANT MORTALITY IN THE TWENTY PRINCIPAL TOWNS.

Egyptians, 1917.

TOWN.	TOTAL.				INFANT MORTALITY.		PROPORTION PER CENT OF INFANT MORTALITY.		
	Births.	Per Thousand.	Deaths.	Per Thousand.	Under 1 Year.	From 1 to 10 Years.	Deaths under 1 Year.		From 1 to 10 Years.
							To Births.	To Deaths.	To Deaths.
Cairo ... ..	30,943	46·5	26,671	40·1	8,321	8,122	26·9	31·2	30·5
Alexandria...	16,530	50·5	13,129	40·1	3,996	3,139	24·2	30·4	24·0
Damietta ... ..	1,377	38·3	808	22·4	194	199	14·1	24·0	24·6
Port Said ... ..	2,722	53·4	1,153	22·6	362	296	13·3	31·4	25·7
Suez ... ..	1,150	63·9	1,062	59·0	305	253	26·5	28·7	23·8
Ismailia ... ..	1,226	102·2*	1,954	162·8*	200	165	16·3	10·2	8·4
Benha... ..	588	29·4	556	27·8	176	134	29·9	31·7	24·1
Zagazig ... ..	1,582	42·8	1,526	41·2	410	485	25·9	26·9	31·8
Tanta ... ..	2,911	51·1	2,479	43·5	774	631	26·6	31·2	25·5
Mansûra ... ..	1,898	44·1	1,540	35·8	373	368	19·6	24·2	23·9
Shibîn el Kôm ... ..	1,073	41·3	708	27·2	171	179	15·9	24·1	25·3
Damanhûr... ..	2,065	44·9	1,564	34·0	512	490	24·8	32·7	31·3
Gîza ... ..	998	55·4	892	49·6	353	256	35·4	39·6	28·7
Faiyûm ... ..	2,338	55·7	1,852	44·1	733	565	31·4	39·6	30·5
Beni Suef ... ..	992	32·0	1,019	32·9	294	360	29·6	28·9	35·3
Minya... ..	1,550	51·7	1,506	50·2	485	492	31·3	32·2	32·7
Asyût ... ..	2,249	51·1	2,057	46·8	684	645	30·4	33·2	31·4
Sohâg ... ..	1,102	55·1	1,003	50·1	299	435	27·1	29·8	43·4
Qena ... ..	1,197	57·0	1,034	49·2	321	347	26·8	31·0	33·6
Aswân... ..	468	36·0	481	37·0	128	164	27·3	26·6	34·1
TOTAL ... ..	74,959	48·1	62,994	40·5	19,091	17,725	25·5	30·3	28·1

\* The high birth-rate and death-rate are due to the influx, owing to the presence of the Army, of a large temporary civilian population whose births and deaths are registered in and calculated against the normal civilian population figures for the locality.

N.B —The rates are all based on the 1917 Census.

TABLE III.—BIRTHS, DEATHS, AND INFANT MORTALITY IN THE TWENTY PRINCIPAL TOWNS.

Foreigners, 1917.

TOWN.	TOTAL.				INFANT MORTALITY.		PROPORTION PER CENT OF INFANT MORTALITY.		
	Births.*	Per Thousand.	Deaths.	Per Thousand.	Under 1 Year.	From 1 to 10 Years.	Deaths under 1 Year.		From 1 to 10 Years.
							To Births.	To Deaths.	To Deaths.
Cairo ... ..	499	6·7	640	8·5	85	68	17·0	13·3	10·6
Alexandria... ..	1,369	17·3	1,027	13·0	134	123	9·8	13·0	12·0
Damietta ... ..	3	11·2	3	11·2	—	—	—	—	—
Port Said ... ..	162	14·7	200	18·2	17	7	10·5	8·5	3·5
Suez ... ..	49	19·2	64	25·1	6	3	12·2	9·4	4·7
Ismailia ... ..	41	20·5	23	11·5	5	5	12·2	21·7	21·7
Benha ... ..	4	18·1	3	13·6	—	1	—	—	33·3
Zagazig ... ..	24	14·2	17	10·0	5	3	20·8	29·4	17·6
Tanta ... ..	10	6·6	5	3·3	—	—	—	—	—
Mansûra ... ..	32	19·5	23	14·0	4	5	12·5	17·4	21·7
Shibîn el Kôm ... ..	3	16·5	2	11·0	—	—	—	—	—
Damanhûr ... ..	2	5·4	—	—	—	—	—	—	—
Gîza ... ..	4	35·0	—	—	—	—	—	—	—
Faiyûm ... ..	6	33·7	2	11·2	—	—	—	—	—
Beni Suef ... ..	3	7·0	4	9·3	—	1	—	—	25·0
Minya... ..	3	6·9	3	6·9	1	1	33·3	33·3	33·3
Asyût ... ..	3	10·7	5	17·9	1	1	33·3	20·0	20·0
Sohâg ... ..	2	29·9	1	14·9	—	—	—	—	—
Qena ... ..	—	—	—	—	—	—	—	—	—
Aswân... ..	—	—	1	1·4	—	—	—	—	—
TOTAL ... ..	2,219	12·5	2,023	11·4	258	218	11·6	9·8	10·8

\* Births of foreigners cannot be considered exact, as they are not all notified.

N B.—The rates are all based on the 1917 Census.

TABLE IV.—GENERAL RETURN OF BIRTHS AND DEATHS REGISTERED THROUGHOUT EGYPT, 1917.

GOVERNORATE OR PROVINCE.	POPULATION.	BIRTHS.				DEATHS.			
	Calculated July 1, 1917.	Egyptians.	Foreigners.	TOTAL.	Per Thousand.	Egyptians.	Foreigners.	TOTAL.	Per Thousand.
	Egyptians and Foreigners.								
<i>Governorates.</i>									
Cairo ... ..	753,800	30,943	499	31,442	41·7	26,671	640	27,311	36·2
Alexandria... ..	442,500	16,530	1,369	17,899	40·4	13,129	1,027	14,156	32·0
Damietta ... ..	31,200	1,377	3	1,380	43·2	808	3	811	26·0
Port Said ... ..	76,100	2,722	162	2,884	37·9	1,153	200	1,353	17·8
Suez ... ..	33,900	1,150	49	1,199	35·4	1,062	64	1,126	33·2
Ismailia ... ..	14,000	1,226	41	1,267	90·5*	1,954	23	1,977	141·2*
<i>Provinces.</i>									
Eastern Desert ...	17,500	83	—	83	4·7	92	1	93	5·3
Oases ... ..	32,400	1,241	—	1,241	38·3	1,328	—	1,328	41·0
Sinai ... ..	5,500	281	—	281	51·1	309	—	309	56·2
Western ... ..	8,800	294	—	294	33·4	522	1	523	59·4
Qalyûbiya ... ..	515,100	20,520	5	20,525	39·8	16,932	4	16,936	32·9
Sharqîya ... ..	949,300	34,103	32	34,135	36·0	28,661	31	28,692	30·2
Daqahliya ... ..	979,000	39,618	41	39,659	40·5	31,029	29	31,058	31·7
Gharbiya ... ..	1,651,400	62,753	46	62,799	38·0	52,613	27	52,640	31·9
Beheira ... ..	888,700	32,246	7	32,253	36·3	22,221	1	22,222	25·0
Minûfiya ... ..	1,071,100	42,595	7	42,602	39·8	33,345	5	33,350	31·1
Gîza ... ..	554,100	25,126	6	25,132	45·4	15,648	4	16,652	30·0
Beni Suef ... ..	451,900	19,502	3	19,505	43·2	10,764	4	10,768	23·8
Faiyûm ... ..	509,600	24,626	7	24,633	48·3	17,362	2	17,364	34·1
Minya... ..	761,000	32,356	3	32,359	42·5	20,498	6	20,504	26·9
Asyût ... ..	973,700	45,417	6	45,423	46·6	29,825	9	29,834	30·6
Girga ... ..	858,700	36,115	2	36,117	42·1	21,148	2	21,150	24·6
Qena ... ..	831,900	32,533	1	32,534	39·1	20,923	—	20,923	25·2
Aswân... ..	251,500	8,076	—	8,076	32·1	6,067	1	6,068	24·1
TOTAL ... ..	12,662,700	511,433	2,289	513,722	40·5	374,064	2,084	376,148	29·7
Preceding Year...	12,148,900	503,953	2,397	506,350	41·7	374,229	2,119	376,348	31·0

\* The high birth-rate and death-rate are due to the influx, owing to the presence of the Army, of a large temporary civilian population whose births and deaths are registered in and calculated against the normal civilian population figures for the locality.



2.—“ ETABLISSEMENTS INCOMMODES, INSALUBRES ET DANGEREUX.”

The following table gives details of the applications for licences for establishments, falling under Class 1 of the Law of August 1904 (public and cattle markets included), which were dealt with in 1917 :—

TABLE V.—APPLICATIONS RECEIVED AND ACTION TAKEN.

NATURE OF ESTABLISHMENT.	Approved.	Refused.	Applications given up.	Under Consideration.	TOTAL.
Sugar-cane crushing and molasses factories	6	—	—	—	6
Butter factories... ..	1	—	2	5	8
Rice-husking mills ... ..	9	1	2	11	23
• Cornmill, rice-husking mill and oil-pressing mill ... ..	1	—	—	—	1
Rice-husking mill and cornmill ... ..	1	—	—	—	1
Cornmill, rice-husking mill, sweetmeat factory, and oil-pressing factory ... ..	1	—	—	—	1
Soap factories ... ..	6	1	—	4	11
Public baths ... ..	4	—	—	2	6
Establishment for pounding tan, pomegranate peel, etc., for dyeing purposes ... ..	1	—	—	—	1
Stores for mineral acids ... ..	2	—	2*	—	4
Brewery ... ..	—	—	—	1	1
Beer-bottling factories ... ..	3	1	2	2	8
Aerated water and beer-bottling factory ...	1	—	—	—	1
Sweetmeat factories... ..	4	—	—	2	6
Artificial butter factories ... ..	1	—	—	—	1
Macaroni factories ... ..	1	—	—	1	2
Match factories... ..	—	—	—	4	4
Distilleries of perfumes ... ..	1	—	—	1	2
Cotton-ginning mills ... ..	8	—	—	12	20
Alcohol factory ... ..	1	—	—	—	1
Lime and cement mill ... ..	—	1	—	—	1
Gypsum-crushing mills ... ..	2	—	—	1	3
Fish-curing establishment ... ..	1	—	—	—	1
Aerated water factories ... ..	12	3	—	9	24
Oil mills ... ..	1	—	—	2	3
Ice factories ... ..	1	—	1	2	4
Ice factories and cold storage establishments	1	—	—	1	2
Markets for the sale of fresh fish (wholesale fish <i>halaqas</i> ) ... ..	2	1	1	2	6
Establishment for ironing clothes... ..	—	—	—	1	1
Tanneries ... ..	4	—	1	4	9
Stores for chemical manure ... ..	2	—	—	—	2
Cornmill and sugar-cane crushing and molasses factory... ..	—	—	—	2	2
• Glue factory ... ..	—	—	—	1	1
Cornmill and macaroni factory ... ..	—	—	—	1	1
Rope factory ... ..	—	—	—	1	1
Pottery ... ..	—	—	—	1	1
Tobacco factory ... ..	—	—	—	1	1
Food markets ... ..	—	—	—	3	3
Public and cattle markets ... ..	15	4	—	10	29
TOTAL ... ..	93	12	11	87	203

\* One returned to Ministry of the Interior, these establishments having been transferred to Public Security Section.

*Ministerial “Arrêtés.”*—The draft *Arrêtés* laying down additional conditions for establishments possessing permits under the Law of August 28, 1904 (*Etablissements Incommodés, Insalubres et Dangereux*) were dealt with in 1917 as follows:—

TABLE VI.—MINISTERIAL “ARRÊTÉS.”

NATURE OF ESTABLISHMENT.	Approved.	Not approved.	Under Consideration	TOTAL.
<i>Alexandria :—</i>				
Oil mills ... ..	3	—	—	3
Pastry establishments ... ..	2	—	—	2
Public kitchens ... ..	5	—	—	5
Public bakeries ... ..	9	—	2	11
Public stables ... ..	4	—	—	4
Frying and roasting establishments ... ..	3	—	1	4
Cattle sheds ... ..	4	—	—	4
Establishment for tow-beating for commerce ... ..	—	1	—	1
Booza factory ... ..	—	—	1	1
Groceries ... ..	4	—	—	4
Shop for the sale of fresh fish (retail) ... ..	—	—	1	1
Butchers' shops ... ..	8	—	3	11
Dairy ... ..	1	—	—	1
Establishments for frying peas ... ..	2	—	—	2
TOTAL ... ..	45	1	8	54
<i>Gharbîya Province :—</i>				
Public bath ... ..	—	—	1	1
Public stable ... ..	—	—	1	1
Public bakery ... ..	1	—	—	1
Pickling establishments ... ..	2	—	—	2
Soap factory ... ..	1	—	—	1
Oil mill ... ..	1	—	—	1
<i>Sharqîya Province :—</i>				
Oil mill ... ..	—	—	1	1
Public bath ... ..	—	—	1	1
<i>Qalyûbiya Province :—</i>				
Aerated water factory ... ..	1	—	—	1
<i>Gîza Province :—</i>				
Public bakery ... ..	—	—	1	1
<i>Beni Suef Province :—</i>				
Tanneries ... ..	—	—	6	6
<i>Faiyûm Province :—</i>				
Cotton-ginning mill ... ..	—	—	1	1
<i>Minya Province :—</i>				
Public bakery ... ..	1	—	—	1
<i>Asyût Province :—</i>				
Lime-kiln ... ..	—	—	1	1
<i>Cairo :—</i>				
Public bakeries ... ..	2	—	—	2
<i>Damietta :—</i>				
Oil mill ... ..	—	—	1	1
Rice-husking mill ... ..	—	—	1	1
TOTAL ... ..	9	—	15	24

3.—MEDICO-LEGAL EXAMINATIONS AND REPORTS.

TABLE VII.

LOCALITY.	SLIGHT		SERIOUS.		FATAL.		TOTAL.	
	Accident.	Criminal.	Accident.	Criminal.	Accident.	Criminal.	Accident.	Criminal.
<i>Governorates :—</i>								
Cairo ... ..	419	8,095	62	36	128	30	609	8,161
Alexandria ... ..	2,070	4,783	482	207	619	97	3,171	5,087
Canal { Port Said ... ..	138	522	17	5	26	2	181	529
{ Ismailia ... ..	45	192	14	12	29	7	88	211
Suez (including Quseir)	15	90	6	—	15	7	36	97
Damietta ... ..	19	205	7	2	22	2	48	209
* El 'Arish ... ..	—	—	—	—	—	—	—	—
LOWER EGYPT.								
<i>Provinces :—</i>								
† Beheira ... ..	180	2,724	112	205	364	80	656	3,009
Gharbiya ... ..	397	3,739	275	182	509	101	1,181	4,022
Minûfiya ... ..	325	1,915	280	138	216	57	821	2,110
Daqahliya ... ..	370	2,151	175	84	286	28	831	2,263
Sharqiya. . ... ..	282	1,316	186	94	327	49	795	1,459
Qalyûbiya ... ..	156	1,373	148	97	173	41	477	1,511
UPPER EGYPT.								
<i>Provinces :—</i>								
Giza... ..	136	1,101	123	80	158	25	417	1,206
Faiyûm ... ..	107	1,377	96	104	109	43	312	1,524
Beni Suef ... ..	223	1,224	52	105	83	56	358	1,385
‡ Minya ... ..	182	1,978	152	147	232	75	566	2,200
Asyût ... ..	1,006	2,582	219	161	342	123	1,567	2,866
Girga ... ..	170	1,938	118	131	194	56	482	2,125
Qena ... ..	122	1,505	110	182	226	44	458	1,731
Aswân ... ..	252	195	65	13	56	7	373	215
♦ TOTAL ... ..	6,614	39,005	2,699	1,985	4,114	930	13,427	41,920

\* El 'Arish is under the Frontier Districts Administration.  
† Not including Siwa Oasis, which is now under the Frontier Districts Administration.  
‡ Not including Bahariya Oasis, which is now under the Frontier Districts Administration.

4.—CEMETERIES AND PRIVATE TOMBS.

(a) CEMETERIES.

Very little work has been done on cemeteries owing to the absence of personnel on account of the war.

The work actually carried out is as follows :—

TABLE VIII.—WORK DONE IN CONNEXION WITH CEMETERIES DURING 1917.

PROVINCE OR GOVERNORATE.	CEMETERIES.			OLD CEMETERIES.		
	Established.	Enlarged.	Roads for Cemeteries.	Authorized.	Portion condemned.	Condemned.
Gharbiya Province ... ..	1	—	—	7	—	1
Behera " ... ..	—	—	—	5	—	—
Daqahliya " ... ..	1	1	—	1	—	—
Minûfiya " ... ..	—	—	—	2	—	3
Qaliubiya " ... ..	—	1	—	1	—	—
Giza " ... ..	1	—	1	2	—	2
Minya " ... ..	—	—	—	2	—	—
Suez Governorate ... ..	—	1	—	—	—	—
TOTAL ... ..	3	3	1	20	—	6



Encroachment on cemetery ground is of very common occurrence. Whenever brought to the notice of the Department, legal action is taken against the offender. The following table gives the results of the legal actions :—

TABLE IX.—LEGAL ACTIONS BROUGHT BY THE CONTENTIEUX AGAINST ENCROACHERS ON CEMETERY LANDS DURING 1917.

PROVINCE.	Judgment in Government's Favour.	Judgment against Government.	Cases filed.
Gharbiya ... ..	—	—	6
Beheira ... ..	2	—	—
Minûfiya ... ..	—	—	7
Daqahliya ... ..	1	—	5
Sharqîya ... ..	5	—	18
Qalyûbiya .. ...	—	—	2
Giza ... ..	1	—	1
Beni Suef ... ..	—	—	2
Faiyûm ... ..	4	—	4
Minya ... ..	—	—	7
TOTAL ... ..	13	—	52

(b) PRIVATE TOMBS.

Only one special authorization (Minya Province) was given in 1917 for burial in private tombs not situated within cemeteries.

5.—“ BIRKAS.”

The details of *birkas* belonging to the Government and filled in by private individuals in accordance with the arrangements made with the Government Lands Department are given below :—

TABLE X.—LIST OF GOVERNMENT “ BIRKAS ” FILLED IN DURING 1917.

MUDÎRÎYA.	Number of <i>Birkas</i> filled in.	TOTAL AREA.			
		Feddâns.	Qirâts.	Sahms.	Sq. Metres.
Beheira ... ..	10	1	18	9·27	7,417·5
Minûfiya ... ..	2	—	13	20	2,421
Daqahliya ... ..	6	6	13	4	27,504
Sharqîya ... ..	2	1	18	18	7,481·2
Giza ... ..	7	3	3	—	13,125
Faiyûm ... ..	2	8	1	8	33,833·3
Beni Suef ... ..	4	—	23	20	4,170·8
Minya ... ..	4	1	5	20	5,220·8

6.—MOSQUES.

The following is a statement of the work which has been carried out in connection with the improvement of the ablutionary systems of mosques throughout the country:—

TABLE XI.—MOSQUES DEALT WITH IN 1917.

DESCRIPTION.	Cairo.	Provinces.	Total.
Ablutionary systems of private mosques newly constructed and opened for use ... ..	—	5	5
Ablutionary systems of Waqfs mosques repaired and opened for use ... ..	—	—	—
Ablutionary systems of old private mosques requiring repairs :—			
Number opened for use after repair... ..	—	126	126
„ closed for want of repair ... ..	—	285	285
„ under repair, the delay not having yet expired.	1	206	207

7.—PROTECTION OF DRINKING WATER.

*Arrêtés* were issued and published in the “Journal Officiel” for preventing the pollution of drinking water at the following places: Mahalla el Kubra, Zifta, Benha and Kafr Manâqir, Bilbeis, Simbillâwein, and Minya.

8.—SLAUGHTER-HOUSES AND SLAUGHTERING SITES.

No new slaughter-houses were established in the country during 1917.

*Slaughtering Sites.*—Sites for the slaughter of animals for food, in villages where no slaughter-houses exist, were approved in the following seven villages:—

Village.	Markaz.	Province.
El Sâhmîya ... ..	Fuwa... ..	Gharbîya.
Birimbâl ... ..	„ ... ..	„
El Zarqa ... ..	Fâriskûr ... ..	Daqahîya.
‘Aga Bandar ... ..	‘Aga ... ..	„
Tûkh Dalka ... ..	Tala ... ..	Minûfiya.
El Wât ... ..	Minûf ... ..	„
Barrage ... ..	Qalyûb ... ..	Qalyûbîya.

“*Dépotoirs*” for *Abattoir Refuse*.—No new sites for the deposition of abattoir refuse have been appointed this year.

9.—“DÉPOTOIRS.”

One *dépotoir* only has been approved by the Department during 1917, viz. that of Qena.

# 10.—PROSTITUTION.

The following table indicates the places to which the Regulations regarding “Maisons de Tolerance” were applied and also certain information regarding the prostitutes examined during the year:—

TABLE XII.—PROSTITUTION IN 1917.

PLACE.	Number of Prostitutes.	Number of Examinations.	SICK OF		
			Syphilis.	Gonorrhœa.	Other Diseases.
Cairo ... .. { Natives ... ..	1,730	36,685	335	1,604	190
... .. { Europeans ... ..	519	16,372	24	264	14
Alexandria ... ..	1,870	56,671	162	576	209
Port Said ... .. { Natives* ... ..	—	—	—	—	—
... .. { Europeans ... ..	38	1,692	—	—	9
Ismailia ... ..	93	2,351	3	71	80
Suez ... ..	80	2,555	3	71	80
Damietta ... ..	3	170	—	—	—
<i>Beheira Mudîriya:—</i>					
Damanhûr ... ..	121	2,790	48	125	—
Shubra Khît ... ..	7	334	—	—	2
<i>Gharbiya Mudîriya:—</i>					
Tanta ... ..	303	10,873	135	93	13
Kafr el Sheikh ... ..	31	648	—	1	8
Disûq ... ..	22	628	3	—	1
Mahalla el Kubra... ..	55	1,466	9	4	1
Kafr el Zaiyât ... ..	52	1,633	5	4	9
<i>Minûfiya Mudîriya:—</i>					
Shibîn el Kôm ... ..	51	655	17	5	17
Minûf ... ..	17	168	4	5	5
<i>Sharqîya Mudîriya:—</i>					
Zagazig ... ..	137	7,672	50	91	36
Bilbeis ... ..	21	930	9	28	—
Ibrahimîa ... ..	43	731	6	33	65
<i>Daqahlîya Mudîriya:—</i>					
Mansûra... ..	183	3,824	29	105	—
Mît Ghamr ... ..	71	1,054	17	14	1
Simbillâwein ... ..	13	469	3	3	—
<i>Qalyûbiya Mudîriya:—</i>					
Benha ... ..	72	3,744	8	35	29
<i>Gîza Mudîriya:—</i>					
Gîza ... ..	20	222	—	—	—
Imbâba ... ..	45	553	1	—	—
<i>Faiyûm Mudîriya:—</i>					
Faiyûm ... ..	103	3,068	34	21	1
<i>Beni Suef Mudîriya:—</i>					
Beni Suef ... ..	31	1,017	20	80	—
<i>Minya Mudîriya:—</i>					
Minya ... ..	94	4,770	79	88	6
Beni Mazâr ... ..	59	1,352	11	1	—
<i>Asyût Mudîriya:—</i>					
Asyût ... ..	106	2,966	50	77	6
Mallawi ... ..	15	814	6	1	—
Rôda ... ..	18	959	—	1	—
Manfalût ... ..	7	298	—	1	1
Abu Tig ... ..	51	941	2	9	—
<i>Carried forward...</i> ...	6,081	171,075	1,073	3,411	783

\* The register having been lost, figures are unobtainable.



TABLE XII.—PROSTITUTION IN 1917 (*continued*).

PLACE.	Number of Prostitutes.	Number of Examinations.	SICK OF		
			Syphilis.	Gonorrhœa.	Other Diseases.
<i>Brought forward...</i>	6,081	171,075	1,073	3,411	783
<i>Girga Mudiriya:—</i>					
Tahta ...	13	686	—	2	5
Sohâg ...	75	2,652	31	18	2
Akhmîm... ..	11	537	—	6	4
Girga ...	59	1,826	32	9	1
Balyana ...	18	613	13	4	—
<i>Qena Mudiriya:—</i>					
Isna... ..	43	1,248	27	27	4
Luxor ...	32	995	—	8	4
Qûs ...	15	264	—	—	4
Dishna ...	8	203	—	7	2
Nag <sup>c</sup> Hammâdi ...	34	1,700	5	16	4
Farshût ...	30	1,320	22	32	10
Qena ...	90	1,406	19	37	—
<i>Aswân Mudiriya:—</i>					
Aswân ...	14	615	1	6	12
TOTAL... ..	6,523	185,140	1,223	3,583	835

TABLE XIII.—NUMBER OF PROSTITUTES TREATED IN GOVERNMENT HOSPITALS DURING 1917.

HOSPITAL.	Number of Prostitutes.	DISEASES.		
		Syphilis.	Gonorrhœa.	Other Diseases.
Alexandria... { Lock Hospital for Natives ...	549	158	158	233
{ Lock Hospital for Europeans... ..	391	40	295	56
Suez ... ..	154	3	71	80
Port Said ... ..	75	37	31	7
Damietta ... ..	—	—	—	—
Tanta ... ..	312	166	130	16
Damanhûr ... ..	185	54	131	—
Mansûra... ..	134	29	105	—
Zagazig ... ..	177	50	91	36
Shibîn el Kôm ... ..	39	17	5	17
Benha ... ..	72	8	35	29
Cairo ... { Hôd el Marsûd Lock Hospital for Natives...	2,505	411	1,799	295
{ Lock Hospital for Europeans ... ..	302	24	264	14
Ciara Fever Hospital ... ..	10	1	—	9
Beni Suef ... ..	66	16	48	2
Faiyûm ... ..	56	34	21	1
Minya ... ..	173	79	88	6
Asyût ... ..	133	50	77	6
Sohâg ... ..	106	66	35	5
Qena ... ..	109	22	81	6
Isna... ..	58	27	26	4
Aswân ... ..	19	1	6	12
TOTAL ... ..	5,625	1,293	3,498	834

## II.—REPORT ON SECTION II.

### 1.—GENERAL HOSPITALS.

#### HOSPITALIZATION OF MILITARY PATIENTS.

The year 1917 showed a considerable reduction in the number of military cases treated in the Provincial hospitals (4,548 patients, as against 12,897 during 1916), Suez and Port Said being practically the only hospitals which were retained by the Military Authorities for this purpose.

Suez hospital transferred the native cases to the old Government hospital, and by means of hut and tent accommodation increased their number of beds for military cases from the pre-war number of 100 to 420.

The total number of military cases treated in the Egyptian Government hospitals since 1915 is 32,832.

The treatment fee of P.T. 17·5 per diem, as arranged in 1915, was adhered to, but, owing to the abnormal rise in food prices, an increase will probably be necessary next year.

#### GENERAL STATISTICS.

The present number of hospitals is registered as twenty-three; this is not really an increase of one hospital, for the hospital at Mersa Matrûh, having been taken over by the Frontier Districts Administration, ceases to be shown in the 1917 list, while the Port Said and Tanta infectious hospitals have been counted as separate hospitals, and figure as such in the list.

The number of beds continues to maintain the marked rise that was shown in 1915, for the purpose of dealing with military cases, and the number of in-patients this year showed a slight rise, as might be expected, to correspond with the increased number of beds.

A satisfactory increase of 4,890 voluntary cases appears in 1916. The number of days of treatment for 1917 was 871,228, as compared with 946,557 in 1916, a decrease of 75,329, which is mainly due to the loss of the military patients.

The average death-rate for all in-patients (military and civilian) was 5·268 per cent in 1916, and 5·709 per cent in 1917.

The number of new out-patients has increased by 31,121, and the number of out-patient attendances by 78,781, compared with 1916. This very important branch of hospital work may be expected to show a still further increase when extra medical officers are appointed to the hospitals.

#### COST OF MAINTENANCE.

The cost of upkeep of the hospitals for 1917 was L.E. 114,591·683 milliemes, as against L.E. 123,379·860 milliemes in 1916, a decrease of L.E. 8,788·177 milliemes.

This economy resulted from the orders all units received to take every care in avoiding extravagance, and is very satisfactory considering the present high prices of all drugs, dressings, food, etc.

The cost per bed per annum fell to L.E. 29·595 milliemes, a marked decrease from that of 1916 and 1915, which showed L.E. 32·256 milliemes and L.E. 34·591 milliemes respectively, while in 1914 this figure was L.E. 37·098 milliemes.

The cost per patient per day showed practically little change: 131 milliemes in 1917; 130 milliemes in 1916; 134 milliemes in 1915; 135 milliemes in 1914.

The receipts for 1917 amounted to L.E. 21,305·857 milliemes, a decrease of L.E. 27,920·779 milliemes from the amount received in 1916.

This is explained by reason of the marked fall in the number of paying military patients, but even so the amount is nearly three times that received in 1914.

*N.B.*—The cost of upkeep does not include the expenses of the Central Administration, nor does it include repairs and renewals of buildings.



### GENERAL NOTES.

In 1917 an electric light plant was installed at Benha hospital, with provision for a complete *x-ray* apparatus, which, unfortunately, has not yet arrived. The means for accomplishing this was provided by local subscription, and it is an example which it is hoped other Mudîrîya towns will follow, and thus the inhabitants will interest themselves in an institution which, though a Government one, concerns their town life so very intimately.

Three new posts of Second Medical Officers were created at Zagazig, Mansûra, and Damanhûr respectively. This very necessary creation has at once shown good results, as seen by consulting the number of new out-patients treated at these hospitals.

A further four appointments of *Moawinîn* (stewards) were made at Shibîn el Kôm, Beni Suef, Faiyûm and Minya respectively, thus leaving now only four hospitals without these very necessary officials.

### NEW WORKS AND REPAIRS.

The following new works were commenced or completed during 1917 :—

1. *Alexandria Hospital, completion of pavilion for ninety beds.*—This building was constructed and occupied in 1913. The credit granted in 1917 was for painting and colour-washing walls and completion of painting to woodwork. This work, which could not be done earlier owing to the premises having been occupied by military cases, was executed departmentally in 1917 at a cost of L.E. 276.

2. *Alexandria Hospital, nurses' house.*—This building was constructed in 1914 and occupied. The credit granted in 1917 was for painting, which could not be done earlier owing to these quarters having been occupied by extra nurses for military cases. The painting was executed departmentally in 1917 at a cost of L.E. 79.

3. *Alexandria Hospital, new verandah for out-patients, construction of roads, etc.*—A new verandah in *béton armé* was constructed for the out-patients at a cost of L.E. 355 and L.E. 89 for benches. This work was commenced on August 1, 1917, and completed on October 19, 1917. The main roads of the hospital were macadamized at a cost of L.E. 637. This work was undertaken by the Alexandria Municipality.

4. *Fever Hospital, Abbassia.*—The existing roads have been repaired, and new roads were made at a cost of L.E. 72 for the new pavilions which were constructed in 1916.

5. *Fever Hospital, Abbassia.*—An additional store has been constructed at a cost of L.E. 478. This work was commenced on September 15, 1915, and completed and handed over on January 10, 1918.

6. *Hôd el Marsûd Hospital.*—This hospital has been enlarged, remodelled, and completely renovated. New quarters have been erected for the matron; electric light and an improved water supply have been installed; the drains have been connected to the Cairo sewers; percolating pits have been abolished; a rubbish destructor has been built, and the courtyards have been macadamized and footpaths asphalted. A special credit was granted for these works, which were executed departmentally at a cost of L.E. 3,463.

7. *Qasr el Aini Hospital.*—The steam boilers at Qasr el Aini hospital have been fitted with burners for crude oil at a cost of L.E. 70. An economy of some L.E. 600 per year is anticipated at the present price of coal.

The total amounts spent on hospital repairs and renewals during 1917 was L.E. 4,148, as compared with L.E. 6,494 during the previous year.

The following hospitals were completely repaired and painted during 1917 :—

Fever hospital, Abbassia (first-class section), Shibîn el Kôm hospital, Zagazig hospital and infectious hospital, Port Said hospital and infectious hospital; extensive repairs have also been done at Qasr el Aini hospital, as far as funds permitted.



Small repairs were undertaken in the following hospitals:—Alexandria hospital, Asyût hospital, Damanhûr hospital, Minya hospital, and Tanta hospital.

Qalyûb hospital, Shawarby Pasha's Waqfs, has also been repaired and painted throughout at the cost of the Waqfs.

Amounts spent on repairs and repainting of the general hospitals from January 1, 1917, to December 31, 1917:—

TABLE XIV.—HOSPITAL REPAIRS, ETC.

	Repairs.	Fitting-up.
	L.E.	L.E.
Fever Hospital, Abbassîya ... ..	83	—
Alexandria Hospital ... ..	99	—
Asyût Hospital ... ..	20	—
Benha „ ... ..	10	41
Beni Suef Hospital ... ..	6	2
Damanhûr „ ... ..	24	—
Faiyûm Hospital ... ..	11	—
Hôd el Marsûd Hospital ... ..	16	—
Kasr el Aini „ ... ..	1,198	354
Qalyûb Hospital ... ..	43	—
Mansûra „ ... ..	30	—
Minya „ ... ..	26	27
Qena „ ... ..	7	3
Port Said „ ... ..	364	14
Port Said Infectious Hospital ... ..	209	12
Suez Hospital ... ..	111	—
Shibîn el Kôm Hospital ... ..	714	—
Sohâg Hospital ... ..	3	—
Tanta „ ... ..	112	—
Tanta Fever Hospital ... ..	8	—
Zagazig Hospital ... ..	533	—
Zagazig Fever Hospital ... ..	68	—
Total... ..	3,695	453
Grand Total... ..	4,148	

TABLE XV.—COMPARATIVE GENERAL STATISTICS.

	1916.		1917.		Increase or Decrease.
	L.E.	M.	L.E.	M.	
Number of hospitals ... ..	22		23		+ 1
„ beds ... ..	3,825		3,872		+ 47
„ in-patients treated ... ..	55,489		56,289		+ 800
Of which voluntary patients... ..	23,332		28,222		+ 4,890
Death-rate for in-patients ... ..	5·268 per cent.		5·709 per cent.		+0·441 per cent.
Number of days of treatment ... ..	946,557		871,228		— 75,329
„ new out-patients ... ..	178,788		209,909		+ 31,121
„ out-patients' visits ... ..	392,961		471,742		+ 78,781
Major operations ... ..	8,576		11,399		+ 2,823
Cost of upkeep ... ..	123,379	860	114,591	683	— 8,788 177
Receipts ... ..	49,226	635	21,305	857	— 27,920 778

TABLE XVI.—PATIENTS AND COST.

HOSPITAL.	Number of Beds.		Number of In Patients.		Number of Days of Treatment.		Number of New Out-Patients.		Number of Out-Patients' Visits.		Number of Operations under Anæsthetic.		Cost of Upkeep for				Cost per bed per annum.		Cost per Patient-day.			
	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917	1916		1917		L.E.	M.	1916	1917		
													L.E.	M.	L.E.	M.						
Alexandria ...	422	356	9,989	10,310	146,173	121,294	20,388	16,899	56,792	50,364	1,587	1,528	19,580	994	17,276	546	46	400	48	530	134	142
Suez ...	420	552	5,483	5,021	76,769	61,613	5,917	4,824	10,763	8,367	401	343	11,674	411	10,818	773	27	796	19	599	152	175
Port Said ...	150	150	2,887	3,177	35,264	45,426	26,580	19,658	39,676	33,918	256	378	7,009	832	8,317	526	46	732	55	450	199	183
Port Said (Inf.)	—	34	82	276	—	3,995	—	—	—	—	—	—	—	—	578	058	—	—	17	002	—	145
Damietta ...	44	48	831	1,002	11,670	13,069	12,045	13,040	21,987	22,908	196	273	1,102	000	1,318	167	25	045	27	462	94	101
Tanta ...	128	113	1,944	2,241	29,430	39,614	5,261	5,308	15,975	18,664	218	373	3,662	461	4,568	122	28	613	40	426	124	115
Tanta (Inf.) ...	—	18	—	372	—	4,205	—	—	—	—	—	—	—	—	382	961	—	—	21	276	—	91
Damanhûr ...	63	63	1,438	1,781	25,894	19,030	2,955	4,262	4,333	9,665	178	439	2,690	180	2,503	446	42	701	39	737	104	131
Mansûra... ..	110	120	1,947	2,031	37,925	41,021	6,285	6,697	12,199	11,926	248	410	3,117	415	3,517	876	28	340	29	316	82	86
Zagazig ... ..	160	120	2,367	2,242	43,271	34,061	3,648	5,169	6,577	8,427	216	501	4,407	192	3,568	449	27	545	29	737	102	105
Shibîn el Kôm	74	74	1,111	1,162	19,542	19,631	3,936	3,898	16,792	17,624	256	318	2,220	961	2,235	583	30	013	30	210	114	114
Benha ... ..	86	53	1,593	1,506	24,937	24,106	3,055	3,865	5,732	5,659	171	229	3,431	475	3,285	691	39	901	60	992	137	135
Qalyûb ... ..	34	34	932	957	9,660	10,631	6,092	5,727	12,457	6,195	266	243	949	437	1,468	654	27	925	43	196	98	139
Mersa Matrûh	14	—	114	—	1,687	—	250	—	350	—	7	—	398	661	—	—	28	476	—	—	236	—
Qasr el 'Aini...	834	834	10,361	12,971	248,791	250,828	54,679	88,629	131,476	212,674	3,094	4,278	29,736	774	29,135	541	35	656	34	935	119	116
Fever Hospital	570	622	3,467	1,674	70,145	25,436	—	—	—	—	—	—	9,115	499	7,469	081	15	992	12	008	130	294
Beni Suef ...	60	62	1,091	996	18,507	18,111	5,130	4,737	5,653	10,871	240	393	3,222	702	2,158	435	53	712	34	813	174	113
Faiyûm ... ..	75	64	1,568	1,143	21,486	14,230	3,598	4,479	6,775	7,280	155	162	3,744	750	1,840	212	49	930	28	753	174	129
Minya ... ..	119	94	1,848	1,275	24,785	19,750	3,945	4,566	16,483	14,601	127	223	4,079	533	2,668	030	34	282	28	383	165	135
Asyût ... ..	272	272	3,478	3,083	52,257	51,758	4,351	6,065	6,576	7,535	500	668	6,391	698	5,329	170	23	499	19	592	122	103
Sohâg ... ..	56	58	1,223	1,111	19,188	18,638	2,074	2,611	6,811	8,277	170	202	2,313	555	1,870	303	41	313	32	247	120	100
Qena ... ..	59	59	763	924	12,714	15,278	2,740	3,026	4,494	5,145	118	216	1,676	020	1,739	659	28	407	29	484	132	114
Isna... ..	32	29	466	502	7,137	7,911	1,631	2,410	5,581	5,900	89	125	1,335	775	1,219	864	41	743	42	064	187	154
Aswân ... ..	43	43	505	532	9,325	11,592	4,228	4,039	5,479	5,702	83	97	1,518	535	1,321	626	35	315	30	736	163	114
TOTAL ...	3,825	3,872	55,489	56,289	946,557	871,228	178,788	209,909	392,961	471,742	8,576	11,399	123,379	860	114,591	683	32	256	29	595	130	131



TABLE XVII.—IN-PATIENTS (VOLUNTARY, POLICE, AND MILITARY).

HOSPITAL.	Voluntary Cases.		Police Cases.		Military Cases.		Total Number of Cases.		Total Number of Days of Treatment	
	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917
Alexandria ... ..	6,397	7,305	1,970	2,547	1,232	111	9,599	9,963	146,173	121,294
Suez ... ..	1,671	1,891	286	278	3,386	2,699	5,343	4,868	76,769	61,613
Port Said ... ..	1,225	1,492	816	851	750	787	2,791	3,100	35,264	45,426
Port Said (Inf.) ...	—	83	—	—	82	192	82	275	—	3,995
Damietta ... ..	606	740	195	231	—	—	801	971	11,670	13,069
Tanta ... ..	375	423	1,203	1,638	303	84	1,881	2,145	29,430	39,614
Tanta (Inf.) ... ..	—	365	—	—	—	—	—	365	—	4,205
Damanhûr ... ..	576	970	467	774	330	—	1,373	1,744	25,894	19,030
Mansûra ... ..	985	1,104	762	836	139	—	1,886	1,940	37,925	41,021
Zagazig ... ..	348	672	933	1,356	1,017	124	2,298	2,152	43,271	34,061
Shibîn el Kôm ...	242	327	776	788	57	—	1,075	1,115	19,542	19,631
Benha ... ..	243	507	713	815	582	118	1,538	1,440	24,937	24,106
Qalyûb ... ..	667	693	247	234	—	—	914	927	9,660	10,631
Mersa Matrûh ...	39	—	12	—	60	—	111	—	1,687	—
Qasr el 'Aini ...	4,796	6,442	4,927	5,630	210	48	9,933	12,120	248,791	250,828
Fever Hospital ...	3,058	1,259	255	322	106	29	3,419	1,610	70,145	25,436
Beni Suef ... ..	303	529	359	436	395	—	1,057	965	18,507	18,111
Faiyûm .. ...	40	330	405	782	1,081	7	1,526	1,119	21,486	14,230
Minya ... ..	85	369	599	789	1,125	56	1,809	1,214	24,785	19,750
Asyût ... ..	841	1,520	1,150	1,148	1,404	256	3,395	2,924	52,257	51,758
Sohâg ... ..	283	333	447	683	442	32	1,172	1,048	19,188	18,638
Qena ... ..	178	358	480	529	81	1	739	888	12,714	15,278
Isna ... ..	196	319	159	159	89	1	444	479	7,137	7,911
Aswân ... ..	178	221	276	275	26	3	480	499	9,325	11,592
TOTAL ... ..	23,332	28,222	17,437	21,101	12,897	4,548	53,666	53,871	946,557	871,228

TABLE XVIII.—ADMISSIONS AND DISCHARGES.

HOSPITAL.	ADMITTED.				DISCHARGED.				REMAINING			
	Existing.		Admitted.		Cured.		Died.				Improved.	
	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917
Alexandria ... ..	390	347	9,599	9,963	4,923	4,397	662	736	4,058	4,871	346	306
Suez ... ..	140	153	5,343	4,868	4,558	3,131	114	215	658	1,506	153	169
Port Said ... ..	96	77	2,791	3,100	1,500	1,664	97	141	1,213	1,250	77	122
Port Said (Infectious) ... ..	—	1	82	275	79	246	—	28	3	1	—	1
Damietta ... ..	30	31	801	971	561	737	33	26	206	195	31	44
Tanta ... ..	63	96	1,881	2,145	1,625	1,901	110	129	113	130	96	81
Tanta (Infectious) ... ..	—	7	—	365	—	337	—	28	—	3	—	4
Damanhûr ... ..	65	37	1,373	1,744	1,224	1,320	84	83	93	330	37	48
Mansûra... ..	61	91	1,886	1,940	1,310	1,136	120	153	426	657	91	85
Zagazig ... ..	69	90	2,298	2,152	1,818	1,480	86	112	373	578	90	72
Shibîn el Kôm ... ..	36	47	1,075	1,115	880	913	44	44	140	152	47	53
Benha ... ..	55	66	1,538	1,440	1,246	1,090	32	54	249	310	66	52
Qalyûb ... ..	19	30	914	927	129	168	35	26	739	733	30	30
Mersa Matrûh ... ..	3	—	111	—	90	—	7	—	16	—	1	—
Qasr el 'Aini... ..	428	851	9,933	12,120	5,156	7,188	677	872	3,677	4,286	851	625
Fever Hospital ... ..	48	64	3,419	1,610	2,920	1,311	439	188	44	116	64	59
Beni Suef ... ..	34	31	1,057	965	800	777	57	60	203	124	31	35
Faiyûm ... ..	42	24	1,526	1,119	1,287	890	29	47	228	168	24	38
Minya ... ..	39	61	1,809	1,214	1,237	995	51	52	499	170	61	58
Asyût ... ..	83	159	3,395	2,924	2,567	2,132	144	116	608	727	159	108
Sohâg ... ..	51	63	1,172	1,048	849	817	50	37	261	212	63	45
Qena ... ..	24	36	739	888	450	641	26	37	251	210	36	36
Isna ... ..	22	23	444	479	406	392	11	11	26	80	23	19
Aswân ... ..	25	33	480	499	365	338	15	19	92	147	33	28
TOTAL ... ..	1,823	2,418	53,666	53,871	35,980	34,001	2,923	3,214	14,176	16,956	2,410	2,118

TABLE XIX.—OUT-PATIENTS' DIVISION.

HOSPITAL.	Number of Patients.		Number of Attendances.	
	1916	1917	1916	1917
Alexandria ... ..	20,388	16,899	56,792	50,364
Suez ... ..	5,917	4,824	10,763	8,367
Port Said... ..	26,580	19,658	39,676	33,918
Port Said (Inf.) ... ..	—	—	—	—
Damietta ... ..	12,045	13,040	21,987	22,908
Tanta ... ..	5,261	5,308	15,975	18,664
Tanta (Inf.) ... ..	—	—	—	—
Damanhûr ... ..	2,955	4,262	4,333	9,665
Mansûra ... ..	6,285	6,697	12,199	11,926
Zagazig ... ..	3,648	5,169	6,577	8,427
Shibîn el Kôm ... ..	3,936	3,898	16,792	17,664
Benha ... ..	3,055	3,865	5,732	5,659
Qalyûb ... ..	6,092	5,727	12,457	6,195
Mersa Matrûh ... ..	250	—	350	—
Qasr el 'Aini ... ..	54,679	88,629	131,476	212,674
Fever Hospital ... ..	—	—	—	—
Beni Suef ... ..	5,130	4,737	5,653	10,871
Faiyûm ... ..	3,598	4,479	6,775	7,280
Minya ... ..	3,945	4,566	16,483	14,601
Asyût ... ..	4,351	6,065	6,576	7,535
Sohâg ... ..	2,074	2,611	6,811	8,277
Qena ... ..	2,740	3,026	4,494	5,145
Isna ... ..	1,631	2,410	5,581	5,900
Aswân ... ..	4,228	4,039	5,479	5,702
TOTAL ...	178,788	209,909	392,961	471,742

TABLE XX.—HOSPITAL RECEIPTS.

HOSPITAL.	RECEIPTS.				HOSPITAL.	RECEIPTS.			
	1916		1917			1916		1917	
	L.E.	M.	L.E.	M.		L.E.	M.	L.E.	M.
					<i>Brought forward...</i>	33,680	996	15,964	970
Alexandria ... ..	7,740	755	1,332	703	Mersa Matrûh ... ..	12	510	—	
Suez ... ..	10,385	141	7,001	824	Qasr el 'Aini ... ..	1,260	988	1,057	158
Port Said ... ..	5,101	970	3,849	604	Fever Hospital ... ..	904	290	465	810
Port Said (Inf.) ... ..	—		325	125	Beni Suef ... ..	1,114	830	212	914
Damietta ... ..	69	755	112	868	Faiyûm ... ..	3,217	890	110	666
Tanta ... ..	1,608	339	578	483	Minya ... ..	2,513	095	588	025
Damanhûr ... ..	1,754	271	335	490	Asyût ... ..	4,350	380	1,854	043
Mansûra ... ..	473	132	484	567	Sohâg ... ..	1,278	945	342	464
Zagazig ... ..	3,707	376	754	667	Qena ... ..	326	818	125	345
Shibîn el Kôm ... ..	537	332	190	490	Isna ... ..	362	612	268	915
Benha ... ..	2,247	917	968	332	Aswân ... ..	203	281	315	547
Qalyûb ... ..	55	008	30	817					
<i>Carried forward...</i>	33,680	996	15,964	970	TOTAL ...	49,226	635	21,305	857



TABLE XXI.—RETURN OF SICK, 1917.

SECTION.	Alexandria.	Suez.	Port Said.	Port Said. (Infectious).	Darnietta.	Tanta.	Tanta (Infectious).	Damanhour.	Mansûra.	Zagazig.	Shibin el Kôm.	Benha.	Qalyûb.	Qasr el Aini.	Fever Hospital.	Beni Suef.	Faiyûm.	Minya.	Asyût.	Sohâg.	Qena.	Isna.	Aswân.	TOTAL.
<i>Medical :—</i>																								
Alimentary :—																								
Diseases of stomach	122	32	125	—	28	25	—	—	1	2	80	26	16	331	—	1	7	—	97	3	12	21	20	949
Tuber. peritonitis	11	1	4	—	—	—	—	—	3	4	—	—	—	24	—	—	1	1	5	—	1	1	2	58
Dysentery	160	205	78	—	55	18	—	84	29	47	4	30	9	282	—	7	5	12	27	18	9	17	21	1,117
Diarrhoea and enteritis	198	94	125	—	10	39	—	35	12	8	2	21	11	214	—	11	35	—	37	5	7	4	4	872
Liver	31	13	2	—	3	3	—	—	—	2	—	4	5	168	—	1	2	4	5	5	1	—	—	249
Other diseases	124	24	6	—	7	—	—	2	—	—	—	1	2	201	—	—	4	25	7	—	—	14	2	419
Respiratory :—																								
Pneumonia...	89	56	50	—	3	11	—	2	6	6	8	3	5	64	21	—	2	8	17	2	5	—	—	358
Phthisis	209	40	36	—	1	5	—	—	6	1	—	4	15	149	—	3	—	1	14	4	7	6	1	502
Pleurisy	18	29	5	—	4	2	—	—	—	3	1	3	3	44	—	—	1	4	5	—	1	—	3	126
Other diseases	276	111	41	—	27	30	—	12	1	12	25	30	27	438	—	9	6	22	63	24	7	12	11	1,184
Circulatory :—																								
Heart	77	68	24	—	10	13	—	—	7	1	—	4	9	389	—	—	1	—	25	6	2	5	5	646
Other diseases	33	11	4	—	—	—	—	3	—	—	—	2	—	239	—	1	—	2	6	—	1	—	—	302
Urinary :—																								
Nephritis	131	5	37	—	15	15	—	25	8	18	21	16	16	170	—	5	3	—	4	3	2	15	2	511
Other diseases	105	38	9	—	—	7	—	5	14	28	13	6	—	25	—	40	2	10	9	—	9	9	6	335
Blood :—																								
Spleen...	59	1	—	—	6	12	—	16	4	4	1	6	9	20	—	3	—	—	6	—	1	—	—	148
Other diseases	46	6	1	—	12	—	—	—	2	—	—	5	80	—	—	—	—	—	2	13	1	—	1	169
Nervous :—																								
Brain	36	—	16	—	—	4	—	—	—	1	—	1	4	22	—	—	1	4	—	2	2	—	1	94
Spinal cord	26	1	1	—	—	3	—	—	—	—	—	1	4	3	—	—	—	—	3	—	—	1	—	43
Other diseases	43	43	4	—	8	1	—	4	—	6	—	3	—	26	—	4	4	8	28	9	1	1	6	199
Constitutional :—																								
Rheumatism	78	70	66	—	8	13	—	6	28	30	12	7	10	45	—	4	10	15	27	10	9	3	7	458
Diabetes	18	2	10	—	1	1	—	1	—	—	—	—	1	54	—	2	—	1	7	2	4	1	1	106
Senility	39	4	12	—	2	10	—	—	10	6	—	5	—	222	—	3	5	—	10	1	—	—	—	329
Debility	92	71	46	—	10	25	—	13	23	32	1	18	20	270	—	3	2	4	56	8	4	2	2	702
Parasitic :—																								
Pellagra	125	12	2	—	24	17	—	20	79	22	14	87	43	19	—	4	—	4	19	11	—	4	—	506
Malaria	19	402	24	—	19	21	—	15	16	35	24	27	51	19	61	10	7	21	71	26	—	1	6	879



Ankylostomiasis	...	...	70	3	3	—	118	4	—	12	12	6	—	9	81	52	—	—	—	28	25	38	27	36	—	524
Filaria...	...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Poisoning:—																										
Alcohol	...	...	157	3	1	—	1	141	—	—	—	18	—	31	—	4	—	20	27	6	—	7	2	1	3	422
Other poisons	...	...	50	3	6	—	—	20	—	19	9	3	12	22	9	259	—	2	7	6	6	7	—	—	1	447
Lunatics	...	...	146	35	41	—	—	36	—	20	15	16	11	8	—	35	—	19	17	7	4	8	—	9	467	
Other medical diseases	...	...	2,145	1,419	942	276	43	241	372	290	393	599	157	167	5	1,280	1,592	68	333	169	51	91	24	30	11,267	
Surgical:—																										
Fractures:—																										
Simple	...	...	260	49	38	—	20	71	—	32	48	45	48	41	8	643	—	24	24	57	99	64	44	8	34	1,657
Compound	...	...	71	9	20	—	16	44	—	25	33	21	26	14	5	378	—	22	24	26	63	46	32	14	21	910
Tumours:—																										
Malignant	...	...	39	1	11	—	11	3	—	1	—	15	—	4	8	39	—	4	2	1	2	9	8	4	1	163
Non-malignant	...	...	33	6	6	—	7	10	—	—	—	8	4	7	4	52	—	56	6	—	37	16	18	7	3	280
Traumatic injuries	...	...	698	199	21	—	52	396	—	313	163	308	232	253	115	669	—	108	151	239	316	300	155	41	78	4,807
Burns	...	...	115	34	22	—	18	50	—	17	17	22	23	28	8	213	—	12	13	7	48	14	11	1	14	687
Bilharziasis	...	...	230	15	29	—	41	43	—	—	170	44	13	65	34	34	—	23	18	27	43	6	7	8	3	853
Fistula in ano	...	...	76	13	35	—	27	23	—	36	34	38	30	23	8	149	—	31	6	14	29	15	4	1	4	596
Liver abscess	...	...	6	5	2	—	—	5	—	3	4	—	—	1	—	13	—	5	—	2	4	—	1	—	—	51
Hernia	...	...	289	48	42	—	22	40	—	51	91	79	35	42	33	221	—	73	27	31	106	14	32	12	5	1,293
Hæmorrhoids	...	...	212	51	57	—	16	26	—	70	36	30	22	20	9	116	—	31	17	13	57	10	9	9	9	820
Appendicitis	...	...	4	37	4	—	4	1	—	—	3	8	—	—	3	20	—	—	4	1	4	—	—	—	—	93
Vesical calculus	...	...	36	3	5	—	20	22	—	37	43	39	4	5	13	26	—	37	12	15	10	4	27	9	3	370
Other surgical diseases	...	...	1,019	622	704	—	230	386	—	378	394	326	266	235	250	1,165	—	155	205	163	572	157	113	58	106	7,504
Ophthalmic	...	...	451	89	118	—	20	3	—	—	2	10	1	33	7	483	—	—	1	67	10	4	52	33	36	1,420
Skin Diseases	...	...	330	100	45	—	9	23	—	12	23	45	21	38	2	255	—	12	9	15	112	8	2	5	7	1,073
Venereal:—																										
Syphilis	...	...	384	138	89	—	25	213	—	65	148	138	22	70	3	550	—	51	95	117	216	117	68	65	39	2,613
Gonorrhœa...	...	...	232	293	83	—	2	148	—	131	128	113	3	37	—	2,735	—	97	25	96	98	52	94	29	10	4,406
Midwifery	...	...	36	6	10	—	1	10	—	13	11	9	11	26	5	67	—	6	4	11	7	1	2	1	2	239
Gynecological diseases	...	...	91	12	46	—	19	4	—	6	3	31	6	1	7	75	—	7	6	3	20	14	2	3	2	358
Relatives accompanying patients	...	...	965	489	69	—	27	3	—	7	2	3	9	16	—	—	—	22	12	8	29	2	18	16	11	1,708
TOTAL...	...	...	10,310	5,021	3,177	276	1,002	2,241	372	1,781	2,031	2,242	1,162	1,506	957	12,971	1,674	996	1,143	1,275	3,083	1,111	924	502	532	56,289
Operations under general anæsthetic			1,528	343	378	—	273	373	—	439	410	501	318	229	243	4,278	—	393	162	223	668	202	216	125	97	11,399

TABLE XXII.—ANALYSIS OF MILITARY CASES (1917).

HOSPITAL.	Number of Military Patients admitted (including Prisoners of War).		Number of Military Cases discharged Fit for Duty (or, if Prisoners of War, to Prisoners of War Camp).		Number of Military Cases discharged to Convalescent Homes, or Camps.		Number of Military Cases discharged to England.		Number of Military Cases transferred to other Hospitals.		Number of Military Cases which died.		Number of Patient-days for Military Patients (including Prisoners of War).	
	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917
Alexandria ...	1,232	111	643	100	370	—	84	3	43	1	63	4	27,300	1,887
Suez ... ..	3,386	2,699	1,226	1,342	1,026	29	40	20	948	1,172	22	23	45,475	31,730
Port Said ...	750	787	683	687	9	10	—	5	41	15	17	52	13,317	15,945
Port Said (In.)	82	192	79	160	—	—	—	—	3	16	—	16	1,447	2,888
Tanta ... ..	303	84	280	93	21	2	18	—	13	2	—	1	5,291	1,131
Damanhûr ...	330	—	225	—	31	—	5	—	69	—	—	—	7,542	—
Mansûra... ..	139	—	112	—	24	—	6	—	9	—	—	—	3,455	—
Zagazig ... ..	1,017	124	816	105	28	—	16	—	131	15	12	4	20,633	1,491
Shibîn el Kôm	57	—	50	—	3	—	—	—	4	—	—	—	1,290	—
Benha ... ..	582	118	469	161	13	—	—	—	66	4	—	—	10,644	3,323
Mersa Matrûh	60	—	59	—	—	—	—	—	—	—	1	—	797	—
Qasr el 'Aini...	210	48	166	45	63	—	30	—	33	—	1	3	3,544	701
Fever Hospital	106	29	55	27	—	—	—	—	28	—	23	2	2,649	594
Beni Suef ...	395	—	279	—	14	—	—	—	101	—	1	—	7,191	—
Faiyûm ... ..	1,081	7	582	7	118	—	—	—	360	—	6	—	15,500	36
Minya ... ..	1,125	56	326	40	415	13	—	—	344	32	11	—	13,253	1,575
Asyût ... ..	1,404	256	742	125	—	—	—	—	571	169	11	2	24,068	4,988
Sohâg ... ..	442	32	247	31	3	—	—	—	158	—	2	1	5,799	433
Qena ... ..	81	1	18	1	—	—	—	—	54	—	—	—	1,555	34
Isna... ..	89	1	72	5	13	—	—	—	—	—	—	—	1,116	43
Aswân ... ..	26	3	13	2	4	3	—	—	1	7	—	—	372	259
Total ... ..	12,897	4,548	7,142	2,931	2,155	57	199	28	2,977	1,433	170	108	212,238	67,058

TABLE XXIII.—COMPARATIVE ANNUAL STATISTICS.

YEAR.	Number of Beds.	Number of In-Patients.	Number of Days of Treatment.	Number of New Out-Patients.	Number of Out-Patients' Visits.	Total Cost of Maintenance.		Cost per Bed per Annum.		Cost per Patient-day.
						L.E.	M.	L.E.	M.	
1908	2,263	31,802	556,543	—	—	—	—	—	—	—
1909	2,491	34,221	598,539	144,509	353,409	—	—	—	—	—
1910	2,385	35,065	579,796	152,733	312,152	—	—	—	—	—
1911	2,385	37,018	621,350	173,401	385,062	—	—	—	—	—
1912	2,346	38,887	614,921	192,227	424,707	77,992	867	33	245	127
1913	2,409	42,794	627,813	207,882	417,845	83,698	539	34	744	133
1914	2,485	44,914	681,680	179,338	346,673	92,189	050	37	098	135
1915	3,320	50,483	858,878	152,329	340,774	114,843	117	34	591	134
1916	3,825	55,489	946,557	178,788	392,961	123,379	860	32	256	130
1917	3,872	56,289	871,228	209,909	471,742	114,591	683	29	595	131



TABLE XXIV.—LUNATICS.

NAME OF HOSPITAL.	Number certified and send to Asylums.			Number of Cases discharged as not Insane.			Number of Cases released as recovered.			Number released as still Insane but not requiring Asylum Treatment.			Total released without Certification, i.e., Total of Columns 4 to 12.			Total Cases admitted to Hospitals from April 1, 1917 to March 31, 1918.			Total Cases admitted into Hospitals in 1916.
	Males.	Fem.	Total	Males.	Fem.	Total.	Males.	Fem.	Total.	Males.	Fem.	Total.	Males.	Fem.	Total.				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Isna ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sohâg ...	2	—	2	1	—	1	—	—	—	2	—	2	3	—	—	5	—	5	2
Damiëttâ ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asyût ...	7	4	11	—	—	—	—	—	—	2	—	22	20	2	22	27	6	33	23
Beni Suef ...	11	3	14	4	1	5	—	—	—	—	—	—	4	1	5	15	4	19	8
Qena ...	4	2	6	—	—	—	1	—	1	—	—	—	2	—	2	6	2	8	3
Manstûra ...	6	—	6	1	—	1	3	—	4	—	—	4	8	1	9	14	1	15	26
Damanhûr ...	7	1	8	—	—	—	—	—	—	—	—	14	10	4	14	17	5	22	8
Port Said ...	11	8	19	11	3	14	—	—	—	4	2	8	17	5	22	28	13	41	42
Minya ...	2	3	5	1	1	2	—	—	—	—	—	4	2	4	6	4	7	11	4
Shibîn el Kôm ...	3	3	6	—	—	—	—	—	—	4	2	6	4	2	6	7	5	12	7
Suez ...	4	2	6	—	—	—	—	—	—	2	—	6	2	4	6	6	6	12	8
Faiyûm ...	2	—	2	—	—	—	—	—	—	—	—	12	10	2	12	12	2	14	20
Qasr el 'Aini ...	19	5	24	12	1	13	—	—	—	—	—	—	12	1	13	31	6	37	34
Fever Hospital (Cairo)	3	2	5	—	—	—	—	—	—	—	—	—	—	—	—	3	2	5	5
Tanta ...	17	7	24	—	—	2	—	—	—	1	—	—	3	—	—	20	7	27	14
Qalyûb ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Benha ...	2	2	4	—	—	—	1	—	1	2	—	2	3	—	3	5	2	7	10
Alexandria ...	73	35	108	1	—	1	2	—	2	19	9	28	22	9	31	95	44	139*	129*
Aswân ...	—	—	—	—	—	—	6	—	6	4	—	4	10	—	10	10	—	10	12
Zagazig ...	1	—	1	6	1	7	—	—	—	2	—	2	8	1	9	9	1	10	19*
Mersa Matrûh ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
TOTAL ...	174	77	251	39	7	46	13	1	14	88	28	116	140	36	176	314	113	427	375
Compare in 1916 ...	148	56	204	47	13	60	12	4	16	81	14	95	140	31	171	288	87	375	—

\* Two-thirds of the cases occurring in Alexandria passed through the hospital there.

2.—GOVERNMENT DISPENSARIES.

The following tables show the numbers of patients treated gratuitously, and the sums collected in respect of those cases for which a charge was made.

TABLE XXV.—OUT-PATIENTS TREATED GRATUITOUSLY IN GOVERNMENT DISPENSARIES DURING 1916 AND 1917.

DISPENSARIES.	Number of Patients.		DISPENSARIES.	Number of Patients.	
	1916	1917		1916	1917
			<i>Brought forward...</i>	22,453	26,000
Rosetta ... ..	852	474	Samalût ... ..	934	907
El ‘Atf ... ..	1,991	815	Abu Qurqâs ... ..	1,797	397
Ityâi el Bârûd ... ..	2,308	3,466	Wasta ... ..	1,846	1,488
El Dilingât... ..	1,096	1,487	Dairût... ..	943	263
Shubra Khit ... ..	455	520	Manfalût ... ..	2,385	1,225
Baltîm (Burullus) ... ..	392	622	Abnûb... ..	786	304
Barrage ... ..	131	382	Abu Tig ... ..	425	486
Fariskûr ... ..	184	119	El Badâri ... ..	1,425	140
Tel el Kebîr ... ..	171	163	Tema ... ..	1,235	1,059
Kafr el Sheikh ... ..	297	236	Akhmîm ... ..	1,033	1,071
Fûa ... ..	567	626	Girga ... ..	1,219	1,001
Abu Hummus ... ..	5,334	8,455	Baliâna ... ..	312	382
El Santa ... ..	435	702	Bassiûn ... ..	30	30
Quweisna ... ..	304	727	Nag <sup>c</sup> Hammâdi... ..	437	622
Shibîn el Qanâtir ... ..	999	1,072	Dishna ... ..	70	11
Mataria (Menzala) ... ..	78	62	Qûs ... ..	164	274
Kafr el Dauwâr ... ..	75	79	Quseir... ..	368	1,001
El Saff ... ..	108	412	Idfu ... ..	165	—
Biba ... ..	1,520	670	El Dirr ... ..	88	372
Itsa ... ..	442	368	Kharga Oasis ... ..	464	—
Beni Mazâr ... ..	4,714	4,543			
<i>Carried forward...</i>	22,453	26,000	TOTAL... ..	38,579	37,033

TABLE XXVI.—DISPENSARY RECEIPTS.

DISPENSARIES.	RECEIPTS.				DISPENSARIES.	RECEIPTS.			
	1916		1917			1916		1917	
	L.E.	M.	L.E.	M.		L.E.	M.	L.E.	M.
					<i>Brought forward...</i>	346	274	366	488
Rosetta ... ..	13	896	14	857	Abu Qurqâs ... ..	15	610	15	815
El 'Atf ... ..	25	325	12	353	Wasta ... ..	9	029	15	552
Ityâi el Barûd ... ..	13	677	10	889	Dairût... ..	7	141	8	237
El Dilingât ... ..	19	677	19	550	Manfalût ... ..	26	140	25	741
Shubra Khît ... ..	12	465	13	413	Abnûb... ..	4	105	7	950
Baltîm (Burullus) ... ..	5	497	7	691	Abu Tig' ... ..	18	550	25	031
Barrage ... ..	5	575	11	941	El Badâri ... ..	15	220	16	482
Fariskûr ... ..	9	371	9	824	Tema ... ..	25	640	26	555
Tel el Kebîr ... ..	11	246	14	404	Akhmûm ... ..	10	183	13	177
Kafr el Sheikh ... ..	7	615	9	223	Girga ... ..	17	870	22	619
Fûa ... ..	17	78	20	773	Baliâna ... ..	5	775	10	343
Abu Hummus ... ..	1	648	2	645	Bassiûn ... ..	11	890	15	240
El Santa ... ..	21	554	27	435	Nag <sup>c</sup> Hammâdi... ..	15	062	18	260
Quweisna ... ..	3	670	17	350	Dishna ... ..	27	277	26	432
Shibîn el Qanâtir ... ..	22	24	19	280	Qûs ... ..	11	393	14	591
Matarîa (Menzala) ... ..	22	370	19	891	Quseir... ..	7	849	5	972
Kafr el Dauwâr ... ..	7	728	10	635	Idfu ... ..	8	195	6	718
El Saff' ... ..	21	165	25	545	El Dirr ... ..	3	685	4	800
Biba ... ..	51	703	38	880	Kharga Oasis ... ..	2	042	1	800
Itsa ... ..	5	896	11	806	Safaga... ..	—	—	0	899
Beni Mazâr ... ..	30	376	28	681	Bahariya Oasis ... ..	0	435	2	889
Samalût ... ..	16	718	19	422	Dakhla Oasis ... ..	0	190	—	—
<i>Carried forward...</i>	346	274	366	488	TOTAL... ..	589	555	651	591



### 3.—CHILDREN'S DISPENSARIES.

During 1917 all the dispensaries have been open, and a new one at Damanhûr was started in June, which makes thirteen in all now working.

The dispensaries suffered a great loss in the death of Miss Owen at Mansûra. Miss Owen had been in charge of the dispensary since its commencement in 1912. She contracted a severe form of typhoid in March, and succumbed after a very short illness.

#### BUILDINGS.

*Asyût.*—The new house at Asyût is nearing completion and should be finished in May 1918. As the present hired house is in a bad state of repair, the new building is designed to accommodate a school for *dayas* also.

*Faiyûm.*—The plan for building for Faiyûm has been postponed, owing to the difficulty in procuring materials etc., during the war. A house, which is shared with the *dayas'* school, has been rented and is suitable for the work.

#### ATTENDANCES.

The total number of attendances at the dispensaries during the whole year was 390,810 in 1916; of these, 70,223 were new, being an increase of 135,728 and 21,300, respectively, on the figures for 1915. But there was a slight decrease in the total number of attendances for 1917 over the figures of 1916—383,707, as compared with 390,810 in 1916, the new cases attending being 69,233, as compared with 70,223 in 1916.

The working days of the dispensaries for the year averaged 293 in 1916 and 295 in 1917 (Mansûra and Damanhûr being excluded in the latter year).

At Asyût, work was suspended for ten days owing to the high Nile flooding the house; and at Port Said the dispensary building was requisitioned at fourteen hours' notice by the Military Authority in order to accommodate a boys' school, so work was also stopped there until a temporary house could be found in which to carry on the work.

#### DOCTORS AND TREATMENT OF PATIENTS.

The gratuitous services of the medical men who have helped during the year in visiting the dispensaries are much appreciated; it is difficult to persuade all the cases that need a medical opinion to go to the hospital, as the mothers are afraid of being sent to cordon.

In those towns where the ophthalmic hospital is situated at some distance from the dispensary, the Director, Ophthalmic Hospitals, has arranged for a cart to attend daily, so that children suffering from some other ailment as well as their eyes can be treated at both institutions, and the arrangement is now working satisfactorily at Asyût and Mansûra. At Zagazig the arrangements have not yet been completed.

The opening of the ophthalmic hospital at Faiyûm reduced the numbers attending the dispensary considerably, so one matron was found sufficient for the work. The second matron is now in charge of the *dayas'* school, which was opened in June, an adjoining house having been taken to accommodate the two institutions.

The high price of bread is influencing the nutrition of the children in most places, both among the town as well as the country cases, and affects the nurslings as well as the older children.

TABLE XXVII.—PATIENTS AND ATTENDANCES.

DISPENSARY.	New Cases.	Old Cases.	Total Attendances.	Period.
Tanta ... ..	6,112	32,646	38,758	297 days
Zagazig ... ..	3,891	16,624	20,515	297 "
Mansûra ... ..	4,825	14,253	19,078	*233 "
Shibîn el Kôm ... ..	4,704	28,829	33,533	298 "
Port Said ... ..	8,733	30,594	39,327	284 "
Damanhûr ... ..	2,763	10,092	12,855	*155 "
Gîza ... ..	6,115	36,685	42,800	293 "
Beni Suef ... ..	5,167	26,233	31,400	297 "
Wasta ... ..	4,308	18,323	22,631	297 "
Biba ... ..	3,167	23,494	26,661	297 "
Minya ... ..	7,589	21,199	28,788	303 "
Asyût ... ..	6,474	39,480	45,954	279 "
Faiyûm ... ..	5,385	16,022	21,407	300 "
Total ... ..	69,233	314,474	383,707	Average. 295 days.
Total in 1914 ...	47,601	202,088	294,689	—
Total in 1915 ...	48,923	206,159	255,082	—
Total in 1916 ...	70,223	320,587	390,810	293
Total in 1917 ...	69,233	314,474	383,707	295
Increase or decrease ...	990	6,113	7,103	—

\* These figures being excluded.

TABLE XXVIII.—CLASSIFICATION OF CASES.

CASES.	Tanta.	Zagazig.	Mansûra.	Shibîn.	Port Said.	Damanhûr.	Gîza.	Beni Suef.	Wasta.	Biba.	Minya.	Asyût.	Faiyûm.
Eyes ... ..	—	585	142	1,107	1,949	68	1,104	57	685	771	1,795	1,807	81
Skin ... ..	861	552	651	1,018	890	289	933	1,057	652	550	829	1,214	751
Chest ... ..	781	435	603	597	450	260	724	1,176	352	478	591	844	851
Abdomen ... ..	2,902	1,545	2,515	1,353	4,572	1,240	2,240	2,465	2,266	1,183	2,267	1,828	1,535
Surgical ... ..	350	187	182	116	347	51	301	125	81	50	37	149	60
General ... ..	1,157	364	695	434	253	607	681	238	262	127	2,055	545	1,940
Infectious ...	61	223	37	79	272	248	132	49	10	8	15	87	167
Total number of new cases	6,112	3,891	4,825	4,704	8,733	2,763	6,115	5,167	4,308	3,167	7,589	6,474	5,385
Number of old cases ... ..	32,646	16,624	14,253	28,829	30,594	10,092	36,685	26,233	18,323	23,494	21,199	39,480	16,022
TOTAL... ..	38,758	20,515	19,078	33,533	39,327	12,855	42,800	31,400	22,631	26,661	28,788	45,954	21,407
Number of working days	297	297	233	298	284	155	293	297	297	297	303	279	300



#### 4.—SCHOOLS FOR “ DAYAS.”

The difficulty of obtaining suitable matrons for the *dayas*' schools has hampered the work this year, one school having closed in May owing to the matron's resignation on account of marriage, and another in November on account of the matron's ill-health. Efforts are now being made to find candidates in England. One new school was established in Faiyûm in June, making seven in all now working, and has already gained the confidence of the people. Another in Damanhûr is ready to open in the new building, which is being specially adapted for the dispensary and school. The others, which have been working throughout the year, are doing well.

An improvement in the method of selecting candidates has resulted in a better type of pupil entering, and those pupils who have not already taken out their hospital certificates are now examined in the extra subjects at the school examination, but the lack of any authority with powers to deal with the town *dayas* adds greatly to the difficulty of the matrons' work, and can only be overcome with the passing of a Midwives' Act, as many of these women openly defy the instructions of the Health Office.

#### BUILDINGS.

The building at Asyût of the children's dispensary is being carried on, and it is probable it will be finished in May 1918, when, it is hoped, a *dayas*' school may be opened there.

#### ATTENDANCES.

The total number of cases attended during the year was 2,373, the proportion of abnormal to normal deliveries being about 9·5 per cent (186 out of 1,956), while the total number of cases in 1916 was 2,197, and the proportion of abnormal to normal deliveries being about 9·4 per cent (176 out of 1,870).

The analysis of abnormal cases shows practically the same class of complication as obtains in Europe, though perhaps transverse presentations are somewhat more frequent.

The total number of visits to patients in their own homes by the matron and pupil *dayas* was 29,615 in 1917, compared with 28,119 in 1916.

The number of premature and still-births is marked. Maternal mortality among the cases attended stands at one in 314 in 1916 and at one in 158 in 1917, most being cases in which there was long delay before the help of the school was sought.

The number of women seeking advice for gynæcological troubles is very large, but most are sent away, as such work is outside the province of the maternity schools, but the matrons help as many as they are able to.

There is a notable absence of ophthalmia neonatorum among the cases, and practically no tetanus during the time of the *dayas*' visits, though it is probable that cases reported to have died later through inability to suck may have been due to this cause.

The number of in-patients during the year was forty-six in 1917, compared with thirty-one in 1916.

#### PUPILS.

One hundred and thirty pupils have been trained and taken their certificates and six have failed to pass the examination in 1916, and 147 pupils have taken their certificates and six have failed to pass the examination in 1917.

#### DOCTORS AND TREATMENT OF PATIENTS.

The assistance given by the doctors of the Government hospitals and also by private practitioners in attending abnormal cases is invaluable, as are also the lectures which are given at some of the schools by the hospital medical officers.

#### OLD “ DAYAS ” AND INSPECTIONS.

It was hoped that two nurses would be appointed, attached to the Public Health Department, who would be employed in inspecting the *dayas* after leaving the schools, and who would also be available to do emergency *locums* in case of sickness of any of the matrons, as it is extremely difficult to get suitable *locums* at short notice, and it is important



that the establishments should not be closed. Some inspections have been carried out in the villages, and the result of these visits only confirms the need for more inspection of the past pupils.

TABLE XXIX.—NUMBER OF “DAYAS” WHO PASSED EXAMINATION AND THOSE WHO FAILED IN 1917.

	Passed.	Failed.	Total.
Tanta ... ..	20	1	21
Zagazig ... ..	35	—	35
Mansûra ... ..	18	3	21
Shibîn el Kôm ... ..	30	—	30
Fayûm ... ..	7	1	8
Minya ... ..	19	1	20
Sohâg ... ..	18	—	18
TOTAL ... ..	147	6	153

Number of Egyptian midwives who attended midwifery course in the maternity homes ... ..	153
Number of those who passed the examination ... ..	147
„ „ failed ... ..	6

TABLE XXX.—CASES.

CASES.	Tanta.	Zagazig.	Mansûra	Shebîn.	Fayûm.	Minya.	Sohâg.	Total.
Abortions ... ..	5	18	31	13	15	11	11	104
Deliveries ... ..	124	644	313	231	214	275	155	1,956
B.B.A.... ... ..	2	—	23	20	79	95	94	313
Primipara ... ..	15	107	83	41	40	49	46	381
Abnormal or complicated...	26	35	23	23	27	30	22	186
Premature births ... ..	9	37	6	4	8	24	9	97
Still-born ... ..	7	20	8	7	3	25	17	87
Deaths { Mother ... ..	2	3	2	1	3	2	2	15
Child... ..	—	13	4	—	3	7	7	34
In-patients... ..	10	7	8	6	1	5	9	46
Total number of cases ...	131	662	367	264	308	381	260	2,373
Total number of visits of matrons and <i>dayas</i> ...	1,636	7,378	5,001	3,036	3,840	3,854	4,870	29,615
Number of working days...	135	342	266	276	208	302	288	—
Number of <i>dayas</i> trained...	20	35	18	30	7	19	18	147

TABLE XXXI.—“ DAYAS ’ ” SCHOOLS, 1917—ANALYSIS OF ABNORMAL CASES.

CASES.	Tanta.	Zagazig.	Mansûra.	Shibîn el Kôm.	Faiyûm.	Minya.	Sohâg.	TOTAL.
<i>Multiple Births :—</i>								
Twins ... ..	2	9	3	1	3	6	2	26
Triplets ... ..	—	1	—	—	—	—	—	1
<i>Abnormal Presentations :—</i>								
Difficult breech ... ..	1	14	3	—	1	5	1	25
Footling ... ..	—	1	—	1	1	—	—	3
Face ... ..	—	1	—	—	2	—	1	4
Transverse ... ..	1	8	4	3	—	2	1	19
Cord ... ..	—	2	—	2	—	2	4	10
<i>Instrumental Deliveries :—</i>								
Forceps ... ..	—	—	4	1	5	4	9	23
Craniotomy ... ..	—	—	—	—	—	1	2	3
<i>Complications :—</i>								
Accidental hæmorrhage ... ..	—	1	—	—	1	4	1	7
Post-partum „ ... ..	1	8	1	2	—	4	2	18
Placenta previa ... ..	1	1	1	—	—	3	—	6
Adherent placenta ... ..	3	—	—	1	—	3	—	7
Prolapse of uterus ... ..	—	1	—	—	—	—	—	1
Rupture of uterus... ..	—	1	—	—	—	—	—	1
Contracted pelvis ... ..	—	—	—	—	1	3	3	7
Hydramnios ... ..	—	—	1	—	3	1	3	8
Uterine inertia ... ..	—	1	—	—	1	1	1	4
Rupture of perineum ... ..	—	—	—	—	—	1	—	1
Hydatiform mole ... ..	—	—	—	—	2	—	—	2
Ascitis in infant ... ..	—	—	—	—	—	—	1	1
Cleft palate and hare lip ... ..	—	—	—	—	—	1	—	1
Anencephaly ... ..	—	—	—	—	1	—	1	2
Hydrocephalus ... ..	—	1	—	—	—	—	1	2
Monster ... ..	—	2	—	1	—	—	1	4
Talipse ... ..	—	1	—	—	1	—	—	2
Diseased cord and placenta... ..	—	1	—	—	—	—	—	1
Eclampsia ... ..	—	1	—	1	—	—	—	2
<i>Premature Births :—</i>								
Viable ... ..	9	33	6	4	6	24	7	89
Non-viable ... ..	5	18	29	13	15	11	11	102
<i>Illnesses complicating Puerperium :—</i>								
Puerperal fever ... ..	2	—	1	—	—	—	—	3
Sapraemia ... ..	—	—	—	—	2	—	—	2
Fever typhoid ... ..	—	1	—	—	—	—	—	1
„ typhus... ..	—	—	—	1	—	—	—	1
„ relapsing ... ..	—	—	—	—	1	—	—	1
„ phthisis ... ..	—	—	—	—	1	—	—	1
Dysentery ... ..	—	1	—	—	1	—	—	2
Diarrhœa ... ..	—	2	—	—	—	—	—	2
Pneumonia ... ..	2	—	—	—	—	—	1	3
Bronchitis ... ..	—	—	—	—	1	—	—	1
Heart disease ... ..	—	—	1	1	1	—	1	4
Umbilical hernia ... ..	—	—	1	—	—	—	—	1
Albuminuria ... ..	1	—	—	—	—	—	—	1
Ovaritis ... ..	1	—	—	—	—	—	—	1
Salpingitis ... ..	—	—	—	1	—	—	—	1
Fistula vag. ves. following lab. ... ..	—	—	—	—	—	—	1	1
Labial abscess ... ..	—	—	—	—	—	—	1	1
Mammary abscess... ..	—	—	—	—	—	—	1	1
Mania ... ..	—	—	—	—	—	—	1	1
<i>Maternal Deaths :—</i>								
Rupture of uterus ... ..	—	1	—	—	—	—	—	1
Placenta previa ... ..	—	—	—	—	—	1	—	1
Post-partum hæmorrhage ... ..	—	—	—	—	1	—	—	1
Ante-partum hæmorrhage (Hydt. Mole) ... ..	—	—	—	—	1	—	—	1
Eclampsia ... ..	—	1	—	—	—	—	—	1
Puerperal fever ... ..	1	—	1	—	—	—	—	2
Mania ... ..	—	—	—	—	—	—	1	1
Albuminuria ... ..	1	—	—	—	—	—	—	1
Heart disease ... ..	—	—	1	1	1	—	—	3
Dysentery ... ..	—	1	—	—	—	—	—	1
Typhus, debility following ... ..	—	—	1	—	—	—	—	1
<i>Infant Mortality :—</i>								
Born dead ... ..	7	20	6	7	5	25	14	84
Died after birth ... ..	—	13	4	—	5	8	7	37
TOTAL ... ..	38	146	68	41	63	110	80	546

### III.—REPORT ON SECTION III.

#### OPHTHALMIC HOSPITALS, 1917.

These hospitals forming the subject of a separate annual report, the outlines only of the work done by them will be given here.

*Statistics.*—The number of out-patients treated at the various hospitals was 81,529; the total number of out-patient attendances was 903,751; the average number of visits of each patient was 12·08; the number of operations performed was 59,581; the number of in-patients was 2,847, to whom 65,384 diets were issued.

*Government Permanent Hospitals.*—The number of permanent hospitals is now ten. The provinces still unprovided with hospitals are Qalyûbîya, Qena and Aswân. A third travelling ophthalmic hospital will be established in 1918 at Giza province.

*Provincial Council Permanent Hospitals.*—Three permanent hospitals are maintained by the Provincial Council, Gharbîya, at Mahalla el Kubra, Kafr el Zaîyât, and Santa.

*Government Travelling Hospitals.*—The two hospitals originally endowed by Sir Ernest Cassel carried on work at Qena, Kafr el Dauwâr, Benha, Giza, Rosetta, and Fuwa.

*Provincial Council Travelling Hospitals.*—The Provincial Councils of Asyût and Daqahliya each maintains a travelling hospital.

*School Inspection and Treatment.*—The school ophthalmic clinics at ten of the provincial primary schools have been carried on during the year satisfactorily.

TABLE XXXII.—SOURCES OF PROVISION AND MAINTENANCE OF HOSPITALS.

	PROVIDED BY	MAINTAINED BY	DATE OPENED.
<i>Permanent :—</i>			
Tanta ... ..	Government grant ...	Government grant... ..	1908
Asyût ... ..	Public subscription and Government grant ...	„ „ ... ..	1911
Mansûra... ..	Gift by Badrawi Pasha	„ „ ... ..	1912
Beni Suef ... ..	Public subscription ...	„ „ ... ..	1912
Zagazig ... ..	Provincial Council... ..	„ „ ... ..	1913
Mahalla el Kubra ... ..	„ „ ... ..	Provincial Council... ..	1913
Kafr el Zaîyât ... ..	„ „ ... ..	„ „ ... ..	1913
Damanhûr ... ..	„ „ ... ..	Government grant... ..	1914
Shibîn el Kôm ... ..	Public subscription ...	„ „ ... ..	1914
Sohâg ... ..	„ „ ... ..	„ „ ... ..	1914
Minya ... ..	Provincial Council... ..	„ „ ... ..	1915
Santa ... ..	„ „ ... ..	Provincial Council... ..	1915
Faiyûm ... ..	„ „ ... ..	Government grant... ..	1916
<i>Travelling :—</i>			
No. 1 Camp ... ..	Sir Ernest Cassel ... ..	Sir Ernest Cassel ... ..	1904
„ 2 „ ... ..	„ „ ... ..	„ „ ... ..	1905
Asyût ... ..	Provincial Council... ..	Provincial Council... ..	1912
Daqahliya ... ..	„ „ ... ..	„ „ ... ..	1913



TABLE XXXIII.—PERMANENT AND TRAVELLING OPHTHALMIC HOSPITALS.

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917
<i>Hospitals in existence :—</i>														
Travelling ... ..	1	2	2	2	2	2	2	3	4	5	4	—	4	4
Permanent ... ..	—	—	—	—	1	1	1	2	4	7	10	11	13	13
New patients treated... ..	2,954	4,210	7,327	7,446	7,794	12,092	14,342	20,488	28,029	40,670	50,126	52,752	68,304	81,529
Total attendance of out-patients	15,039	50,680	94,204	146,830	132,278	177,761	190,247	236,411	341,211	544,267	686,012	735,919	849,366	903,751
Operations performed ... ..	1,282	2,480	5,846	6,794	6,426	9,930	11,486	14,322	21,315	30,648	40,710	42,146	54,205	59,581
In-patients... ..	49	140	202	184	208	390	443	678	909	1,807	2,071	2,274	2,454	2,847
<i>Details :—</i>														
Patients examined ... ..	...	...	...	...	19,614	22,373	25,514	31,274	43,668	62,233	75,398	71,930	94,447	100,410
Patients regularly treated ... ..	...	...	...	...	7,794	12,092	14,342	20,488	28,029	40,670	50,126	52,752	68,304	81,529
Incurable cases ... ..	...	...	...	...	4,550	2,302	1,776	2,620	7,200	9,544	10,554	7,765	9,871	9,675
Blind in one eye ... ..	...	...	...	...	1,189	2,116	2,438	3,196	4,115	5,360	6,425	5,637	7,042	9,385
Blind in both eyes ... ..	...	...	...	...	852	1,385	3,010	2,811	2,824	3,878	3,591	2,992	3,504	4,611
Trichiasis cases examined ... ..	...	...	...	...	8,159	10,060	7,507	7,871	13,176	17,329	21,624	19,220	22,214	27,341
“ “ operated on and cured ... ..	...	...	...	...	2,262	3,128	2,022	3,933	6,942	11,700	16,542	19,149	26,094	30,200
<i>New patients treated per age :—</i>														
Under 1 year... ..	...	...	...	...	247	516	457	761	1,495	2,700	2,472	3,023	4,031	5,168
From 1 to 5 years ... ..	...	...	...	...	585	1,645	1,497	1,903	3,317	4,631	6,394	5,762	7,865	7,938
“ 6 „ 10 „ ... ..	...	...	...	...	902	1,442	4,469	2,101	3,210	4,786	5,634	5,229	6,985	9,217
“ 11 „ 15 „ ... ..	...	...	...	...	849	1,294	1,475	2,051	3,056	3,799	4,570	5,651	6,275	7,965
“ 16 „ 20 „ ... ..	...	...	...	...	829	1,156	1,499	2,067	2,588	3,253	3,949	4,491	5,752	6,748
“ 21 „ 40 „ ... ..	...	...	...	...	2,584	3,775	4,845	6,116	8,167	12,679	17,257	18,492	23,017	28,028
“ 41 and over ... ..	...	...	...	...	1,798	2,206	3,100	5,589	6,196	8,822	9,850	10,104	14,379	16,465

## IV.—REPORT ON SECTION IV.

### 1.—INFECTIOUS DISEASES.

The chief features to be remarked in connection with infectious diseases in 1917 are:—

- (i) A considerable increase in the case incidence of relapsing fever as compared with the normal.
- (ii) An increase in the case incidence of typhus fever as compared with the normal.
- (iii) A decrease in the case incidence of plague as compared with 1916.

#### RELAPSING FEVER.

The number of relapsing fever cases which occurred in 1917 is the largest so far recorded in this country.

The following table shows the number of relapsing fever cases and deaths reported during the last five years:—

YEAR.	Cases.	Deaths.	Percentage Death Rate.
1913 ... ..	342	45	13·4
1914 ... ..	218	28	12·8
1915 ... ..	761	72	9·4
1916 ... ..	10,494	826	7·8
1917 ... ..	11,162	1,043	9·3

#### TYPHUS FEVER.

Although the number of typhus fever cases recorded during 1917 is much above the average the total is some 12,000 less than that reached in the previous year.

The following table shows the number of typhus cases and deaths reported during the last five years:—

YEAR.	Cases.	Deaths.	Percentage Death Rate.
1913 ... ..	4,936	1,438	28·9
1914 ... ..	9,508	2,533	26·6
1915 ... ..	17,096	4,216	25·2
1916 ... ..	30,507	7,096	23·2
1917 ... ..	18,569	4,174	22·4

The continuous drop in the death-rate, as stated in the report of last year, is probably due to better reporting of the disease.

An attempt was made in dealing with this disease in the villages to test the relative value of measures (a) based on the theory that the disease is conveyed by the louse, and (b) on the theory that the disease is produced by inhalation of infected material.

The measures adopted, based on the louse-infection theory, were:—

- (i) Immediate isolation of the cases.
- (ii) Steam disinfection of clothes worn by contacts. Bathing of bodies of contacts where possible.
- (iii) Steam disinfection of everything in the houses of patients or contacts likely to harbour lice.
- (iv) Daily observation of the people living in the house of the case.
- (v) General disinfection of the clothes of the villagers, without reference to contact, where the disease was widespread.

The measures employed under (b), inhalation theory, were:—

- (a) Isolation of the cases.
- (b) Complete and careful daily observation of all contacts.
- (c) No disinfection whatever of contacts or houses.



These two sets of measures were applied so as to exclude variation of result caused by extraneous circumstances, such as the variation in climate, habits of the people, etc.

Measures based on the theory of louse infection gave considerably better results. They have since been applied to all mudîrîyas.

#### STEAM DISINFECTION.

A considerable extension of steam disinfection has been effected by the use of portable galvanized iron drums, made on the principle of an autoclave. On several occasions, in severely infected villages, general disinfection of the clothes of villagers has been accomplished with the necessary rapidity by connecting up the engines of steam flour mills with wooden barrels, in which the clothing was placed.

#### PLAGUE.

The total number of declared cases of plague in 1917 was 732, as compared with 1,702 in 1916. The number of deaths was 399, showing a mortality of 54·5 per cent, compared with 828 in 1916, or 48·7 per cent in 1916.

*Outbreak at Suez.*—Of these 732 cases, 318 occurred in Suez.

The last outbreak of plague in Suez occurred in 1907. Since that year Suez remained free from plague. The first case in 1917 in the town was detected on May 5, and the outbreak lasted till July. In April, twenty-one cases had occurred amongst troops and Egyptian labourers camping further north on the Canal.

There was a severe epidemic among the rats.

The outbreak was of a virulent nature. Three hundred and eighteen cases occurred, and 58·1 per cent died. The majority were bubonic in type, but fifty-one septicæmic cases were notified, and eighteen cases of secondary pneumonic infection. Among the contacts of the latter, only two cases of primary pneumonic plague occurred.

Since the commencement of the war Suez has been overcrowded in its poorer quarters by casual labourers imported from all parts of the country for the additional work produced by war conditions. This overcrowding materially increased the number of cases.

#### PNEUMONIC PLAGUE.

Out of a total of 732 cases which occurred in 1917, 608 were of the bubonic type, 65 of the septicæmic, and 59 of the pneumonic.

TABLE XXXIV.—NUMBER OF CASES AND DEATHS FROM PLAGUE IN 1917.

Town or District.	Province.	Cases.	Deaths.
Cairo ... ..	Governorate ...	2	—
Alexandria ... ..	" ...	17	9
Port Said ... ..	" ...	40	25
Suez ... ..	" ...	318	195
Ismailia ... ..	Canal Govern.	1	—
Kantara ... ..	" ... ..	1	—
Qalyûb ... ..	Qalyûbiya ...	6	—
El Saff ... ..	Gîza ... ..	1	—
Faiyûm ... ..	Faiyûm ... ..	60	27
Sinnûris ... ..	" ... ..	40	22
Itsa ... ..	" ... ..	48	28
El Wâsta ... ..	Beni Suef... ..	1	—
Beni Suef ... ..	" ... ..	1	—
Abu Qurqâs ... ..	Minya ... ..	43	16
Maghâgha ... ..	" ... ..	1	1
Minya ... ..	" ... ..	4	2
Samâlût ... ..	" ... ..	3	1
Badâri ... ..	Asyût ... ..	1	1
Abu Tig ... ..	" ... ..	7	7
Asyût ... ..	" ... ..	27	15
Mallawi ... ..	" ... ..	1	—
Ahmîm ... ..	Girga ... ..	14	3
Talita ... ..	" ... ..	41	11
Dishna ... ..	Qena ... ..	54	36
TOTAL ... ..		732	399



TABLE XXXV.—RECAPITULATION OF PLAGUE STATISTICS, 1899-1917.

YEAR.	Cases.	Deaths.	Deaths per Cent.
1899 ... ..	93	45	48·0
1900 ... ..	127	60	47·2
1901 ... ..	205	102	49·5
1902 ... ..	481	291	60·0
1903 ... ..	303	160	52·7
1904 ... ..	854	501	58·6
1905 ... ..	266	181	68·0
1906 ... ..	631	475	75·2
1907 ... ..	1,253	914	72·9
1908 ... ..	1,511	780	51·6
1909 ... ..	513	207	40·5
1910 ... ..	1,238	615	49·7
1911 ... ..	1,656	1,041	62·9
1912 ... ..	884	441	49·9
1913 ... ..	654	304	46·5
1914 ... ..	219	111	50·7
1915 ... ..	235	120	51·0
1916 ... ..	1,702	828	48·7
1917 ... ..	732	399	54·5

MALARIA.

The movement of troops and native levies caused by the war has involved the introduction into all parts of Egypt of a considerable mass of malaria infection.

It was decided in the early part of the summer that energetic steps must therefore be taken to prevent the spread of the disease.

A committee composed of members of all Government Administrations interested in the question was therefore formed. The Ministries and Departments represented in the committee were the Ministries of Finance, Interior, Agriculture and Public Works (the latter Ministry having a representative both of the Irrigation and Drainage Departments), and the Department of Public Health.

An Army representative was also appointed.

This committee appointed the following sub-committees to study and report on the various questions involved :—

- (i) A sub-committee for Cairo and Cairo district.
- (ii) „ „ the principal mudîrîya towns.
- (iii) „ „ rural districts.
- (iv) „ „ the oases.
- (v) „ „ for legal questions, *i.e.* the drafting of a Mosquito Law.

A sum of money was granted for drainage experiments urgently required in Cairo district, and those were undertaken.

Full reports of this and the work of the other sub-committees will be published separately at a later date.

MALARIA CASES.

The following table shows the number of cases of the disease which have come under the notice of the Administration during the year 1917.

LOCALITY.	Cases.	LOCALITY.	Cases
		<i>Brought forward</i> ...	284
Cairo ... ..	24	Qalyûbiya ... ..	56
Alexandria ... ..	26	Sharqîya ... ..	69
Ismailia ... ..	10	Asyût ... ..	24
Port Said ... ..	11	Aswân ... ..	5
Damietta ... ..	9	Benî Suef ... ..	11
Suez ... ..	151	El Fayûm ... ..	8
Beheira ... ..	4	El Gîza ... ..	3
Daqahliya ... ..	2	Girga ... ..	1
Gharbiya ... ..	24	El Minya... ..	18
Minûfiya ... ..	23	Qena... ..	—
<i>Carried forward</i> ...	284	TOTAL ... ..	479

# CHOLERA.

*Cholera Cases.*—On June 27, 1917, the s.s. “ Maryland ” arrived at Port Said from Aden. This ship had Indian coolies on board with cholera, who were disembarked in Aden. Eight of her passengers disembarked at Port Said, and they were immediately put under isolation in the fever hospital. Specimens from their stools were examined bacteriologically, and one of them was found to be excreting vibrios suspicious of cholera.

*Sinai.*—In December 1917, two cholera cases occurred in Sinai, one in a native woman in Belah village, and the other at El Arish, in the person of a Camel Tsansport Corps labourer who had been evacuated from Ramleh district.

*Cases in the Interior.*—In December 1917, three cholera cases occurred amongst labourers returning from military employment:—

- (i) An Egyptian Labour Corps labourer who had been discharged from Kantara on December 17, 1917, after debility following on fever of unknown origin. He died in his village, Tell Beni Tamîm, Shibîn el Qanâtir Markaz, two days after his return.
- (ii) An E.L.C. labourer who arrived from Kantara to Imbâba on December 25, 1917. He was put under observation under the control system, and died on December 12, 1917. He had been working in Palestine before his return to Kantara.
- (iii) An A.S.C. *sais* who had been working for three months in Kantara. He arrived at Cairo on December 29, 1917, and was found in a street in Sayeda Zenab quarter, and was consequently removed to the Abbassia fever hospital.

In addition to the three above cases, two other cases occurred amongst Turkish prisoners of war recently brought into Egypt. The first was detected on November 27, 1917, and the second on November 30, 1917.

The system of notification and observation of labourers discharged from service with the Army east of the Canal, alluded to in last year’s report, was continued and developed. By this agency cases Nos. (i) and (ii), described above, were detected and the necessary measures taken in time.

In view of the constant menace of cholera infection to which the country was exposed during the year under review, it was thought necessary to obtain additional legal powers of dealing with the disease. A new law (No. 10, dated June 26, 1917) was therefore passed. The powers granted under this law give much more summary powers than previously existed of protecting water supplies, dealing with defects in mosques, public kitchens, cafés, aerated water factories, etc.

# SMALL-POX.

The number of cases recorded is the lowest during the last nine years. The death-rate is the same as in 1916.

The following table shows the number of cases and deaths recorded during the last five years :—

YEAR.	Cases.	Deaths.	Death rate per cent of Cases.
1913 ... ..	2,934	706	24
1914 ... ..	7,097	1,564	22
1915 ... ..	5,222	1,262	24·1
1916 ... ..	2,972	802	26
1917 ... ..	1,567	409	26

The usual detailed statistical tables are appended.



TABLE XXXVI.—NOTIFIABLE INFECTIOUS DISEASES.

1917.

GOVERNORATES.  PROVINCE AND DISTRICT.	SMALLPOX.		MEASLES.		DIPHTHERIA.		TYPHOID.		TYPHUS.		RELAPSING.		PLAGUE.		SCARLET FEVER.		CEREBRO-SPINAL MENINGITIS.		CHOLERA.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cairo ... ..	56	5	1,060	461	930	353	1,257	353	822	382	258	15	2	—	315	24	20	13	1	—
Alexandria ... ..	71	26	175	36	112	25	829	222	3,466	981	119	6	17	9	70	4	11	11	—	—
Damietta ... ..	—	—	3	1	18	15	5	3	140	34	2	—	—	—	—	—	—	—	—	—
Port Said ... ..	—	—	3	—	10	4	61	37	21	14	78	2	41	25	3	—	5	4	—	—
Suez ... ..	7	2	164	17	41	—	63	20	115	25	127	9	318	195	5	—	13	9	1	—
Ismailia ... ..	3	1	3	—	4	3	26	18	3	3	8,156	728	1	—	—	1	1	1	—	—
El Arish ... ..	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Frontier Districts ... ..	135	5	—	—	—	—	1	—	588	265	1	—	—	—	—	—	—	—	—	—
TOTAL... ..	272	39	1,408	515	1,115	400	2,242	653	5,155	1,704	8,742	760	379	229	393	28	50	38	2	—
Gharbīya Province :—																				
Tanta... ..	32	5	673	444	31	14	11	1	257	51	67	6	—	—	—	—	—	—	—	—
Kafr el Sheikh ... ..	20	5	95	69	1	1	—	—	141	24	10	2	—	—	—	—	—	—	—	—
Mahalla el Kubra ... ..	64	6	52	12	9	6	1	—	637	122	39	—	—	—	—	—	—	—	—	—
Shirbīn ... ..	14	3	95	72	1	—	—	—	390	59	—	—	—	—	—	—	—	—	—	—
Kafr el Zaiyât... ..	—	—	150	37	3	—	2	—	457	65	185	15	—	—	5	—	—	—	—	—
Disûq ... ..	2	—	56	24	—	—	—	—	173	40	—	—	—	—	—	—	—	—	—	—
Santa ... ..	12	—	—	—	2	—	1	—	301	34	115	8	—	—	—	—	—	—	—	—
Talkha ... ..	11	1	37	15	—	—	—	—	297	33	—	—	—	—	—	—	—	—	—	—
Fuwa ... ..	1	1	153	144	—	—	—	—	50	8	—	—	—	—	—	—	—	—	—	—
Zifta ... ..	4	1	230	137	23	10	1	1	327	57	172	31	—	—	—	—	—	—	—	—
Burullus ... ..	3	—	—	—	—	—	—	—	64	7	—	—	—	—	—	—	—	—	—	—
TOTAL ... ..	163	22	1,541	954	72	33	16	2	3,094	500	588	62	—	—	5	—	—	—	—	—
Daqahliya Province :—																				
Mansûra ... ..	71	10	128	63	30	9	25	6	527	116	48	5	—	—	4	—	2	—	—	—
Simbillâwein ... ..	102	12	—	—	—	—	—	—	429	48	13	1	—	—	—	—	—	—	—	—
Mit Ghamr ... ..	2	—	232	162	1	—	—	—	416	66	250	16	—	—	—	—	—	—	—	—
Dikrnis ... ..	139	45	166	120	1	—	—	—	488	104	—	—	—	—	—	—	—	—	—	—
Aga ... ..	12	2	150	84	2	—	—	—	347	23	12	1	—	—	—	—	—	—	—	—
Fâriskûr ... ..	—	—	79	46	—	—	—	—	226	38	—	—	—	—	—	—	—	—	—	—
TOTAL ... ..	326	69	755	475	34	9	25	6	2,433	395	323	23	—	—	4	—	2	—	—	—



## Beheira Province:—

Beheira Province :—																		
Damanhûr	...	...	...	7	6	2	1	9	1	123	27	2	—	—	—	2	—	—
Shubra Khît	...	...	...	—	—	—	—	—	—	170	27	—	—	—	—	—	—	—
It'yâi el Barûd...	...	...	...	—	—	—	—	—	—	288	38	—	—	—	—	—	—	—
Rashid	...	...	1	20	1	1	1	7	1	224	34	3	—	—	—	—	—	—
Kôm Hamâda	...	...	—	6	3	3	1	2	—	449	76	2	1	—	—	1	—	—
Abu Hummus	...	...	—	—	—	—	—	—	—	89	8	—	—	—	—	—	—	—
Dilingât	...	...	—	5	4	—	—	—	—	341	53	—	—	—	—	—	—	—
Kafr el Dauwâr	...	...	—	27	3	—	—	—	—	188	15	—	—	—	—	—	—	—
Ramleh	...	...	—	—	—	—	—	—	—	39	11	—	—	—	—	—	—	—
TOTAL	...	...	2	65	15	6	3	18	2	1,911	289	7	1	—	—	3	—	—
Sharqîya Province :—																		
Zagazig	...	...	29	430	235	14	6	19	6	190	71	27	1	—	—	—	—	—
Minyet el Qamh	...	...	14	314	53	2	1	—	—	111	24	41	13	—	—	—	—	—
Bilbeis	...	...	14	7	4	2	2	—	—	37	6	—	—	—	—	—	—	—
Hihya	...	...	18	247	10	—	—	27	9	117	29	17	2	—	—	—	—	—
Kafr Saqr	...	...	24	14	4	—	—	—	—	97	22	—	—	—	—	—	—	—
Faqs	...	...	26	28	12	—	—	1	1	74	19	16	—	—	—	—	—	—
TOTAL	...	...	125	1,040	318	18	9	47	16	626	171	101	16	—	—	—	—	—
Minûfiya Province :—																		
Shibîn el Kôm	...	...	2	58	12	9	7	18	4	363	60	14	—	—	—	—	—	—
Minûf	...	...	1	45	27	3	3	1	—	583	118	1	—	—	—	—	—	—
Tala	...	...	1	365	106	8	6	1	1	223	4	117	14	—	—	—	—	—
Quweisna	...	...	2	42	19	3	—	4	—	464	100	1	1	—	—	—	—	—
Ashmûn	...	...	—	16	1	8	3	3	1	231	41	2	—	—	—	—	—	—
TOTAL	...	...	6	526	165	31	19	27	6	1,864	302	135	15	—	—	—	—	—
Gîza Province :—																		
Gîza	...	...	—	24	6	9	6	4	2	24	9	—	—	—	—	—	—	—
Imbâba	...	...	—	123	62	1	1	1	—	45	8	—	—	—	—	—	1	—
El 'Aiyât	...	...	—	—	—	—	—	—	—	26	7	2	—	—	—	—	—	—
El Saïf	...	...	—	56	29	—	—	—	—	39	1	1	—	—	—	—	—	—
TOTAL	...	...	—	203	97	10	7	5	2	134	25	3	—	—	—	—	1	1

TABLE XXXVI.—NOTIFIABLE INFECTIOUS DISEASES (*continued*).

PROVINCE AND DISTRICT.	SMALLPOX.		MEASLES.		DIPHTHERIA.		TYPHOID.		TYPHUS.		RELAPSING.		PLAGUE.		SCARLET FEVER.		CEREBRO-SPINAL MENINGITIS.		CHOLERA.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Qalyûbiya Province :—</i>																				
Benha ... ..	—	—	38	32	7	4	5	3	114	22	38	1	—	—	—	—	—	—	—	—
Shibîn el Qanâter ... ..	—	—	36	1	5	1	—	—	33	4	—	—	—	—	—	—	—	—	1	1
Tûkh... ..	—	—	350	221	3	2	—	—	43	6	299	29	—	—	—	—	—	—	—	—
Qalyûb ... ..	—	—	28	3	7	3	1	—	185	28	4	—	6	—	—	—	—	—	—	—
TOTAL ... ..	—	—	452	257	22	10	7	3	375	60	341	30	6	—	—	—	—	—	1	1
<i>Faiyûm Province :—</i>																				
Faiyûm ... ..	—	—	44	19	24	15	13	5	13	3	86	10	60	27	—	—	—	—	—	—
Itsa ... ..	—	—	18	4	6	6	—	—	13	5	11	—	48	28	—	—	—	—	—	—
Sinnûris ... ..	1	1	22	7	12	10	3	—	20	13	1	—	40	22	—	—	—	—	—	—
TOTAL ... ..	1	1	84	30	42	31	16	5	46	21	98	10	148	77	—	—	—	—	—	—
<i>Beni Suef Province :—</i>																				
Beni Suef ... ..	3	—	40	5	21	7	17	5	47	9	17	—	1	—	3	—	2	1	—	—
Biba ... ..	—	—	19	8	—	—	1	—	50	8	7	2	—	—	—	—	—	—	—	—
Wasta ... ..	1	—	57	24	1	—	2	1	3	—	—	—	1	—	—	—	—	—	—	—
TOTAL ... ..	4	—	116	37	22	7	20	6	100	17	24	2	2	—	3	—	2	1	—	—
<i>Minya Province :—</i>																				
Minya ... ..	4	—	71	16	31	20	18	6	12	3	28	3	4	2	—	—	—	—	—	—
Abu Qurqâs ... ..	49	12	1	—	7	4	—	—	32	11	6	—	43	16	—	—	—	—	—	—
Samalût ... ..	1	1	18	13	4	4	—	—	15	3	44	5	3	1	—	—	—	—	—	—
Beni Mazâr ... ..	1	1	126	95	1	1	—	—	5	9	31	3	—	—	—	—	—	—	—	—
Maghâgha ... ..	—	—	14	7	—	—	—	—	32	1	1	1	1	1	—	—	—	—	—	—
Fashn ... ..	—	—	20	15	5	5	—	—	19	3	2	—	—	—	—	—	—	—	—	—
TOTAL ... ..	55	14	250	146	48	34	18	6	115	30	112	12	51	20	—	—	—	—	—	—





The following diseases were also recorded in 1917 :—

Disease.	Cases.	Deaths.
Chicken-pox ... ..	396	6
Malaria ... ..	479	103
Parotitis ... ..	360	23
Whooping cough ... ..	409	76
Anthrax ... ..	26	21
Leprosy ... ..	23	22
Bilious fever ... ..	2	2
Malta fever ... ..	23	2

2.—PILGRIMAGE.

Owing to the war and the difficulty of providing ships for pilgrims, the Ministry of Interior issued Circular No. 20, dated June 27, 1917, in which it was laid down that the Government had only provided ships for 1,000 pilgrims, and that applications to make the pilgrimage should be submitted before July 21, 1917, and that such applications would be accepted according to the order in which they were submitted.

Two hundred and eighty-one pilgrims left for the Hedjaz, in addition to the Mahmal escort, which amounted to 582 persons.

They embarked at Suez for Jedda on September 12, 1917, on board s.s. “ Neguileh.”

The Mahmal and its escort were embarked on one of His Majesty’s cruisers.

All pilgrims were vaccinated against cholera by the medical officer of the Mahmal.

No visit was made to Medina, owing to the fact that it was still in Turkish hands.

The health of all pilgrims was good. On arrival at Suez, only four were found sick and admitted to Suez hospital. The result of the further observation was satisfactory, as all pilgrims except one were traced and observed.

3.—“ MULEDS.”

In 1917 the Department gave its opinion regarding the holding of thirty-seven *mûleds*, the period of celebration of which varied from three to fifteen days each.

No other *mûleds* were celebrated, owing to the circular of the Ministry of Interior, dated August 27, 1914.

4.—BARBERS.

(a) *Specially trained in First Aid*.—No barbers were trained in First Aid in 1917, and no first aid chests were issued.

(b) Six hundred and seventy barbers were given sanitary permits during the year.

5.—PASSENGER AND IMIGRANT CONTROL.

The monthly number of ships arriving at Damietta was as follows: April—1, June—1, July—1, August—2, September—7, October—7: total 19. All these ships arrived from Cyprus. They had 112 sailors on board.

TABLE XXXVII.—STATISTICS OF PASSENGERS WHO LANDED AT PORT SAID FROM SHIPS COMING FROM CHOLERA-INFECTED COUNTRIES DURING THE YEAR 1917.

	ORDINARY PASSENGERS.						TRANSIT PASSENGERS.					
	1st and 2nd Class.			3rd Class and Deck.			1st and 2nd Class.			3rd Class and Deck.		
	Found.	Not found.	Percentage of found.	Found.	Not found.	Percentage of found.	Found.	Not found.	Percentage of found.	Found.	Not found.	Percentage of found.
Cairo ... ..	22	2	92	49	7	87	—	—	—	—	—	—
Alexandria ... ..	25	1	96	258	70	79	—	—	—	—	—	—
Interior ... ..	11	—	100	113	3	97	—	—	—	—	—	—
Port Said ... ..	67	—	100	606	—	100	—	—	—	1	—	100
TOTAL ... ..	125	3	98	1,026	80	93	—	—	—	1	—	100

Total passengers found 1,152. Total passengers not found 83. Percentage of passengers found 93.

TABLE XXXVIII.—STATISTICS OF PASSENGERS WHO LANDED AT ALEXANDRIA IN 1917 FROM SHIPS COMING FROM CHOLERA-INFECTED COUNTRIES.

MONTHS.	PASSENGERS FOR CAIRO.						PASSENGERS FOR INTERIOR.						PASSENGERS REMAINED AT ALEXANDRIA.						TRANSITS.			TOTAL.					
	1st and 2nd Class.			3rd Class.			1st and 2nd Class.			3rd Class.			1st and 2nd Class.			1st, 2nd and 3rd Class.			1st and 2nd Class.			3rd Class.			Found.	Not found.	Percentage found.
	Found.	Not found.	Percentage found.	Found.	Not found.	Percentage found.	Found.	Not found.	Percentage found.	Found.	Not found.	Percentage found.	Found.	Not found.	Percentage found.	Found.	Not found.	Percentage found.	Found.	Not found.	Percentage found.	Found.	Not found.	Percentage found.			
January ...	3	—	100	7	—	100	1	139	1	99	—	100	2	—	100	51	—	100	—	—	—	6	—	100	197	1	99
February ...	—	—	—	4	2	67	—	606	15	97	—	100	3	—	100	275	17	94	—	—	—	3	—	100	885	34	96
March ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	100	—	—	—	—	—	—	1	—	100
April ...	—	—	—	—	—	—	—	—	—	—	—	100	1	—	100	18	—	100	—	—	—	1	—	100	18	—	100
May..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
June ...	—	—	—	1	—	100	—	—	—	100	—	100	1	—	100	66	—	100	—	—	—	1	—	100	68	—	100
July...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	—	100	—	—	—	—	—	—	12	—	100
August ...	—	—	—	11	—	100	—	202	—	100	—	100	—	—	—	730	—	100	—	—	—	—	—	—	913	—	100
September	1	—	100	110	—	100	1	114	—	100	—	100	3	—	100	243	—	100	—	—	—	5	—	100	467	—	100
October ...	—	—	—	—	—	—	2	10	—	100	—	100	6	—	100	37	—	100	—	—	—	8	—	100	47	—	100
November ...	7	—	100	20	—	100	2	10	—	100	—	100	25	—	100	4,636	—	100	—	—	—	34	—	100	4,665	—	100
December ...	4	—	100	9	—	100	—	—	—	—	—	—	3	—	100	1,862	—	100	—	—	—	7	—	100	1,871	—	100
TOTAL ...	15	—	100	162	2	99	6	1,082	16	98	—	100	44	—	100	7,931	17	99	—	—	—	65	—	100	9,175	35	99

Percentage of Passengers Found, 99%

Total number of Passengers { Found ... 9,240  
Not found ... 35

Total (general) ... 9,275\*

\* Including 34 passengers sent to hospital.

TABLE XXXIX.—PASSENGERS' ARRIVING AT SUEZ, 1917.

PORT.	Egyptians.	Arabs.	Other Nationalities.	Total.	Not traced.
Jeddah ... ..	107	35	105	247	5
Akaba ... ..	81	21	15	117	11
Waghe ... ..	217	—	13	230	3
Yombou ... ..	7	8	16	31	2
Singapore ... ..	4	—	—	4	—
Basra ... ..	35	—	6	41	3
Indian Ports ...	25	—	56	81	1
	476	64	211	751	25

In addition to the above, 3,358 passengers arrived at Suez from other ports. Also 76,632 E.L.C. men, returned from Mesopotamia. The latter were put under observation for five days in a special camp at Suez, and any of them found with a history of malaria were subsequently examined and treated for this disease by the medical officers of their places of destination.



## V.—REPORT ON PUBLIC HEALTH LABORATORIES.

### 1.—INTRODUCTION.

Towards the end of 1916 the gradual institution by the Army of separate military laboratories, in connection with the various Army hospitals in the Cairo area, greatly relieved the excessive pressure of work on the Bacteriological Section of the Public Health Laboratories, which, until the Army could make the necessary arrangements, had temporarily undertaken the whole bacteriological diagnosis work of this area. During 1917 this decentralization was completed, and the laboratories attached to the various military hospitals were able to deal with practically the whole of their routine bacteriological diagnosis, special cases only being referred to the Public Health Laboratories.

The chemical work undertaken for the Army, on the other hand, showed a considerable increase. This consisted mainly in chemical analyses of drinking water, foodstuffs, disinfectants, etc. These analyses are, as far as possible, included under the heading of "Military" in the accompanying tables. In addition, the laboratories were constantly referred to by the Army for opinion on various bacteriological and chemical questions.

The total number of specimens examined during the year was 15,111, as compared with 21,397 in 1916, the diminution being due to the great reduction in the bacteriological diagnosis for the Army. Excluding the work done for the Army, the figures show a considerable increase: 13,766 specimens being examined during the year, as compared with 11,895 during 1916.

During the past nine years the figures for the regular work of the laboratories (excluding examinations made for the Army) have been as follows :—

TABLE XL.—COMPARATIVE ANNUAL STATISTICS.

YEAR.	Chemical (including Water and Milk).	Bacteriological (including Water).	TOTAL.
1909	484*	2,755	3,239
1910	1,225†	5,428	6,653
1911	581	5,193	5,774
1912	797	5,268	6,065
1913	813	6,998	7,811
1914	1,828	9,150	10,978
1915	3,870	8,277	12,147
1916	3,345	8,550	11,895
1917	3,213	10,553	13,766

\* Khedivial Laboratory.

† Including 718 from Khedivial Laboratory.

It will be seen that there is a steady increase in the amount of work done by the laboratories, and everything appears to point to this rate of increase being continued. Under the present war conditions the provision of further accommodation appears for the moment out of the question, but as soon as circumstances will allow this matter must receive urgent consideration.

In view of the importance of a knowledge of the distribution of malaria and of relapsing fever, the diagnosis of these two diseases is now undertaken by the laboratories for private practitioners free of charge.



The question of food and diets, especially in connection with pellagra, received a considerable amount of attention, and suitable dietaries were drawn out for the different classes of refugees at the Armenian Refugee Camp, Port Said. These dietaries were put in force early in the year, from which time pellagra appears to have gradually disappeared from the camp.

One of the members of the staff attended and gave evidence at a commission held in connection with the Armenian Refugee Camp.

The question of the preparation of flour in this country and its adulteration was studied, and some of the different types of flour-mills visited. Also some biological tests were attempted in connection with the differentiation of the different flours.

The Laboratories have arranged to take over from the Government Analytical Laboratory the standardization of opium for the Customs Administration, and also the examination of *hashish* for the Customs and Coast Guards Administrations.

With regard to the staff, two posts of third-class chemists are temporarily vacant, owing to the occupants (Italian and Greek subjects) having joined their respective armies. The appointment of another second-class bacteriologist has also been postponed until after the war.

Dr. Bain, Director of the Antirabic Institute, was absent throughout the year on active service with the French army, his work being carried out by Père de Vregille, who, previous to the war, was Director of the Antirabic Institute in Beyrout.

One of the English members of the bacteriological staff unfortunately contracted a laboratory infection of Malta fever, and was in hospital for the latter half of the year. This is the second case of laboratory infection which has occurred in these laboratories, as the former director, some years ago, also contracted Malta fever. Working under the conditions existing in Egypt, and with more or less untrained servants, such accidents cannot always be avoided. Every precaution is taken against such occurrences, and as an additional safeguard the members of the staff have been inoculated both with T.A.B. and cholera vaccines.

Owing to the war conditions great difficulties have been encountered in obtaining scientific apparatus, glass, chemicals, etc., from Europe, but an adequate supply has so far been obtained, and the work of the laboratories has not suffered.

Owing to the steady increase in the work of the laboratories, the present arrangements for the receipt and registration of the large number of specimens sent for analysis from Cairo and the provinces, together with the correspondence relating to these specimens, have become inadequate to deal with the work, as much of this is naturally of an urgent nature and necessitates a considerable amount of telephonic communication in addition to the ordinary correspondence. With a view to remedying this, the Central Administration kindly lent the services of the Deputy Director of the Administrative Service, who was asked to report on the most suitable method of dealing with this section of the work. As a result, a satisfactory scheme has been evolved for the reorganization of the clerical work connected with the receipt and registration of specimens and the reporting of the results. This will be put into practice as soon as the necessary accommodation is available.

The reorganization of the library has been practically completed, and as a reference scientific library has been taken full advantage of by the members of the staff, as well as by various medical officers of the Army. Reprints have been classified according to subjects and sections. This, together with a card index which has been begun, makes these reports and reprints more easily accessible for reference.

The reorganization of the stores, in accordance with the instructions laid down by the Stores Department of the Ministry of Finance, has been completed, and a card-index system put into operation which facilitates the working of this section and controls the consumption and stock of the various articles.

Owing to the scarcity of paper some papers and reports written by the members of the staff were held up for publication. These are in the hands of the Government Printing Press, and will be published under the title of "Notes and Reports" as soon as the facilities of the Printing Press will allow. The papers included are:—

1. An Endemic Centre of Filarial Infection in the Neighbourhood of Cairo.
2. A Report on the Bacteriological Examination of 1,827 cases of Suspected "Enterica."
3. Some Experiments on the Differentiation of Cow and Buffalo Milk.
4. Composition of Egyptian Cow Milk.



5. Composition of Egyptian Goat Milk.
6. On Egyptian Lettuce Oil.
7. Notice Historique et Statistique sur l'Institut Antirabique du Caire.
8. Conseils Pratiques pour les Analyses d'Eau.

## 2.—BACTERIOLOGICAL SECTION.

The following table gives a list of the examinations made under their several headings. The figures do not include the specimens of water examined bacteriologically, these being given in the report on the Water Section.

TABLE XLI.—BACTERIOLOGICAL WORK DONE.

NATURE OF SPECIMEN.	Government.	Private.	Military.	TOTAL.
Cholera ... ..	183	—	8	191
Plague ... ..	364	—	—	364
Cerebro-spinal meningitis ... ..	12	8	67	87
Diphtheria... ..	172	791	45	1,008
Malaria and relapsing fevers ... ..	3,690	33	78	3,801
Malaria fever ... ..	391	—	—	391
Relapsing fever ... ..	486	—	—	486
Agglutination reaction for enteric ... ..	525	241	21	787
" " Malta fever ... ..	440	33	1	474
Cultural examinations for enteric... ..	14	17	5	36
" " dysentery (and microscopic) ... ..	3	6	8	17
Wassermann reaction ... ..	913	7	123	1,043
Films for gonorrhœa ... ..	165	6	418	589
" for <i>Spirochaeta pallida</i> ... ..	9	2	46	57
Sputum for tuberculosis ... ..	93	13	24	130
Urine for albumin, sugar, or both... ..	3	—	3	6
" bilharzia ova ... ..	30	3	11	44
Anthrax ... ..	5	—	—	5
Miscellaneous ... ..	46	10	27	83
GRAND TOTAL ... ..	7,544	1,170	885	9,599

The occurrence of an outbreak of cholera in the area under military occupation east of the Suez Canal, necessitating the institution of stringent measures on the part of the Department for the protection of Egypt, involved a considerable amount of increase in the cholera work.

In view of the importance of the immediate detection of any cases occurring in Egypt, arrangements were made for the reception and examination of specimens arriving at night. Specimens were sent to the laboratories in special ice boxes, a large number of which were kept at numerous centres throughout the country.

In addition to the routine diagnosis, a number of disinfection and other experiments were carried out in connection with cholera prophylaxis, and advice and assistance given to the Epidemic Section in the drawing up of the cholera regulations and on many questions of cholera prophylaxis.

The number of examinations made for Government hospitals and Government services throughout the country shows an increase on last year's figures of 1,532, the increase being mainly under the headings of cholera, malaria, and relapsing fever.

The examinations made for private practitioners show an increase of 224, the increase being mainly under the heading of diphtheria. Owing to the extension of the free list for private examinations, the amount of fees collected was small.

As a result of the re-arrangement of the military work the number of bacteriological examinations made during the year was markedly diminished—885 as against 9,144 last year.

The fitting-out and despatch of cholera-collecting specimen boxes was undertaken by the laboratories and added materially to the work of the storekeeper and his assistant.

As difficulty was experienced in obtaining sufficient cholera vaccine from Europe, six batches of vaccine were made and bottled and sent to cold storage. This made an addition of some 10,000 doses to the reserve stock.

During the spring, advantage was taken of the large number of typhus cases in the Government Infectious Diseases Hospital, and an investigation was begun in connection with this disease. Passage experiments were carried out on guinea-pigs and these



at the end of the year had reached the twenty-fourth passage. In all, some 160 guinea-pigs have been utilized. This has given opportunities from time to time, as the routine work allowed, of investigations into the nature of the causal organisms by microscopical and cultural methods. Experiments were also carried out in relation to the part played by infected lice in the transmission of the disease. These experiments are being continued.

Opportunity was taken for the preparation of a polyvalent agglutinating paratyphoid A serum, one of the members of the staff having isolated and worked through some 200 different strains. Exhaustion experiments were carried out with a view, if possible, to find some form of classification in these and allied organisms.

Various agglutinating sera were made in connection with different organisms isolated, especially for many of the vibrios separated from suspected cases of cholera.

An average of twenty Wassermann reactions were carried out each week; this necessitated the making of a regular supply of hæmolytic serum and antigen. The weekly routine examination of specimens from the lunatic asylum for this reaction was continued throughout the year. These constituted about 80 per cent of the total number of the Wassermann reactions made. The results have been found of great value by the Director of the Lunacy Section and add considerably to the value of the reports on the cases, as well as aiding in their classification.

Examinations were made periodically of specimens sent by the Veterinary Section of the Ministry of Interior. These included many interesting conditions occurring in domesticated animals.

The usual diagnosis examinations were made for the Medical Commission and any case of special interest investigated.

The laboratories were constantly in touch with the different Government and military laboratories throughout the country, supplying them with such materials as were available and with standard stock cultures.

Samples of bread and flour were examined and reported on from time to time, both for the Military Authorities and for Government Departments.

Lists of requirements were drawn out for Provincial Government Laboratories, and an arrangement made for standardizing the technique in the laboratories.

At the request of the Arab Bureau a list of the necessary outfit and equipment for the proposed laboratory at Jeddah was prepared, and certain media and materials supplied by the Public Health Laboratories.

The laboratories were regularly consulted by the different Government Departments for advice and reports on various specimens, such as disinfectants, filters, milk, etc. Technical opinion was given from time to time to the Department's Stores Section, especially in connection with contracts.

Some difficulty was experienced in obtaining and maintaining an adequate stock of experimental animals, but arrangements have now been made at Khanka Asylum, Khanka Sewage Farm, and the Government Infectious Diseases Hospital at Abbassia for the breeding of rabbits and guinea-pigs, so that it is hoped this difficulty will be suitably met in the future.

3.—CHEMICAL SECTION.

The following chemical analyses have been performed during 1917:—

TABLE XLII.—CHEMICAL WORK DONE.

SAMPLES RECEIVED FROM	Water.	MANZUL, HALÂWA, ETC.		BUTTER.			Edible Fats and Oils.	MILK.				Drugs, etc.	Miscellaneous.	TOTAL.
		Narcotics or Alkaloids.		Genuine.	Adulterated.			Genuine.	Adulterated.	Doubtful (kind of milk not stated).	Abnormal.			
		Present.	Absent.		By admixture with other fats and oils.	Containing an excessive amount of water.								
Govt. Administrations ...	104	5	8	33	3	6	24	1,433	854	14	19	194	208	2,905
General Parquet ... ..	—	64	179	19	5	—	2	—	—	—	—	2	2	273
Private persons ... ..	—	—	—	1	1	2	—	3	11	—	—	—	11	29
Military ... ..	53	—	—	3	2	8	10	6	13	3	—	7	230	335
GRAND TOTAL ...	157	69	187	56	11	16	36	1,442	878	17	19	203	451	3,542

The miscellaneous analyses in the preceding table are made up as follows :—

TABLE XLIII.—DETAILS OF MISCELLANEOUS CHEMICAL ANALYSES.

NATURE OF SPECIMEN.	Government.	Military.	Parquet.	Private.	Total.
Bread ... ..	4	—	—	—	4
Coffee ... ..	—	3	—	—	3
Flour and grains ... ..	18	32	—	2	52
Fruit, jams ... ..	8	—	—	—	8
Molasses and honey ... ..	11	—	1	—	12
Vinegar ... ..	—	6	—	—	6
Aerated waters, etc. ... ..	142	1	—	—	143
Various foodstuffs and beverages ... ..	6	2	—	4	12
Alum and alumino-ferric ... ..	1	6	—	2	9
Bleaching powder ... ..	1	165	—	—	166
Sand ... ..	6	—	—	—	6
Stomach and stomach washings ... ..	4	13	—	—	17
Urine ... ..	2	1	—	3	6
Various ... ..	5	1	1	—	7
GRAND TOTAL ... ..	208	230	2	11	451

In addition to the foregoing, the following chemical examinations have been carried out : tinned milk 4 ; condensed milk 2.

*Milk Analyses.*—The daily analysis of milk on behalf of the Cairo City Health Inspectorate, has been continued during 1917. A summary of the results (which are included in the table of chemical analyses) is appended.

TABLE XLIV.—MILK ANALYSES.

DESCRIPTION.	Number.	Percentage.
Genuine ... ..	1,420	63·9
Adulterated (skimmed, watered, or both)	802	36·1
Skimmed ... ..	248	11·2
Watered ... ..	389	17·5
Skimmed and watered ... ..	165	7·4
Abnormal ... ..	16	—
Doubtful (kind of milk not stated) ... ..	11	—

Five samples contained added sugar.

The tables given above include the following investigations :—

1. *Native Diet.*—Quantitative analyses have been made of typical articles of food forming the diet of the population of Egypt. Certain seeds grown in Egypt have been analysed with a view to ascertaining their nutritive values.

2. *Flour.*—A number of consignments of flour have been examined for the British Army and opinions given as to their suitability for making bread.

3. *Margarine.*—Supplies of margarine prepared by local manufacturers have been examined and opinions given with regard to suitability for issue to troops. The locally prepared product now being issued is periodically examined.

4. *Molasses.*—At the request of the Ministry of Agriculture analyses have been performed of a number of samples of *asal* prepared in Upper Egypt and Lower Egypt.

5. *Bleaching Powder.*—In view of the difficulty experienced in keeping this product, experiments have been made on its rate of decomposition in this country. The Epidemic Section of the Department has been advised as to methods of storage and issue.



6. *Destruction of Fleas*.—A suitable emulsion for this purpose has been recommended to the Epidemic Section.

7. *Sale of Food*.—In connection with the drafting of a proposed Food Law by the Central Administration, advice has been given on various technical points.

#### 4.—WATER SECTION.

The number of analyses of water and ice made for all purposes during the year was as follows :—

TABLE XLV.—WATER AND ICE ANALYSES.

<i>Bacteriological.</i>	Number of Samples.	Examined for Total Bacteria.	Examined for Lactose Fermenters.
Cairo :—			
Rôd el Farag supply ... ..	478	478	478
Gîza supply ... ..	244	244	244
Me'âdi supply ... ..	324	324	324
Daily samples of tap water in Cairo	345	345	—
Various... ..	6	6	6
Military supplies ... ..	35	35	35
Aerated waters, etc.... ..	415	231	415
Ice ... ..	117	117	117
TOTAL ... ..	1,964	1,780	1,619
<i>Chemical.</i>			
Public supplies ... ..	230	—	—
Military „ ... ..	53	—	—
TOTAL ... ..	157	—	—

A regular weekly examination has been made throughout the year of the water of the Rôd el Farag, Gîza, and Me'âdi supplies, and a daily bacteriological examination of the Rôd el Farag supply as delivered in the town.

Bacteriological examinations of the ice supply in Cairo and of samples of aerated waters collected in Cairo have been regularly carried out for the Cairo Health Inspectorate.

The results of these analyses will be included in the report of the Medical Officer of Health for the city.

The analyses of water supplies for the British Army have been continued during 1917 and a complete list compiled, showing the results of some hundreds of analyses of well waters in Egypt and Sinai, together with all available information as to the nature and site of each well.

Preparations for the treatment of water, including bleaching powder, alum, and sterilizing tablets, have been examined and reported upon.

Equipment has been supplied to the Army for the purpose of testing water in the field as regards :—

(a) Salinity.

(b) Presence of active chlorine in chlorinated water.

(c) Presence of poisons in well waters of recently occupied territory.

For various reasons—mainly connected with the European war—it has not yet been possible to develop the Water Service so as to provide an adequate and regular inspection of the public drinking water supplies of the country. It is very desirable that as soon as circumstances allow this matter should receive serious attention. A note on this question—submitted to the Director-General on August 14, 1917—is annexed hereto.



NOTE ON THE WATER SERVICE.

*Submitted to the Director-General, Public Health Department.*

In the Annual Statistical Report of the Department for 1915 it was stated that :  
“ With a view to the hygienic control of water supplies in Egypt, a special Water Service was formed by the Department early in the year, and was placed in charge of the Director of the Hygienic Institute, with the collaboration of the Chief Engineer of the Municipalities and Local Commissions. It is intended that this Service will undertake the regular inspection of all public water supplies, whether these are in the hands of the Government, Municipalities, companies, or private individuals, and will concern itself with all questions relating to water supplies in Egypt.”

For various reasons—mainly connected with the European war—it has not been possible for the Department to develop this Service, so that, as yet, there is no provision for a regular or adequate inspection of the public drinking water supplies of the country.

It is important that this state of affairs should be frankly recognised, as the fact that the Department has nominally created a “ Water Service ” for the control of the supplies gives the impression that these supplies are being regularly inspected and adequately controlled.

The present position of the question is as follows :—

Early in 1915 the Department, recognizing the urgent necessity for a regular and adequate control of the public water supplies, and the desirability of a Service which would interest itself especially in the various problems connected with drinking water supplies in Egypt, decided on the creation of a Water Service.

No special staff for this purpose was at the moment available, but it was arranged that the Director of the Hygienic Institute should be in charge of the Service, with the collaboration, for engineering questions, of the Chief Engineer of the Municipalities and Local Commissions. Bacteriological and chemical analyses—except in the case of Alexandria and the Suez Canal Company’s supplies—were to be carried out in the Hygienic Institute, Cairo, where a post of second-class bacteriologist was provided. Under the existing conditions it has been, however, thought advisable to postpone filling this post until after the war ; and as it has not been possible to provide any special staff for the purpose of inspection, collection of samples, etc., the inspections have had to be made in person by the Director of the Hygienic Institute and the Chief Engineer of Municipalities, and as the time of these two officials is already fully occupied the Water Service naturally suffers.

Under the present conditions this state of affairs is to some extent perhaps unavoidable, but as soon as circumstances permit every effort should, I think, be made to put this Service on a sound basis.

The provision of safe drinking water supplies is now universally recognized as a fundamental public health measure, and in a country liable to infection with cholera is absolutely vital if the population is to be protected from large outbreaks.

Although a great deal has been already accomplished by the Public Health Department in the provision of water supplies for the larger Egyptian towns, this is only a beginning, and much remains to be done.

The supplies even of Cairo and Alexandria leave much to be desired, and most of the smaller towns in Egypt are as yet unprovided with filtered supplies ; the inhabitants taking their water generally from very questionable, if not highly polluted, sources.

Although the Water Service has been in existence for so short a time its influence on the efficiency of many of the supplies is already evident, and a good beginning has been made. All the larger supplies have been visited and are being reported upon. Where necessary, repeated visits have been made and suggestions for the improvement of the existing conditions, or for necessary modifications, drawn up.

All consignments of alum or “ alumino-ferric ” to be employed for the clarification of water are now examined, both for their content of available aluminium sulphate and for absence of arsenic, and the different sands employed are examined in the laboratories for their suitability for use in filters.

A regular weekly examination is made of the Rôd el Farag, Giza, and Me’âdi supplies, and a daily bacteriological examination of the water from the Cairo supply as supplied in town.

A regular bacteriological examination of the ice supplied in Cairo has been instituted, and the very necessary examination of aerated waters on sale both in Cairo and the provinces has been begun, although the available staff is not sufficient to deal with this question on any large scale. The results obtained already, however, show that grossly polluted aerated waters are sold in the country.

During the years 1915 and 1916, since the creation of the Service, a total of 2,850 bacteriological and 716 chemical examinations of water, ice, and mineral waters have been made.

This amount represents the maximum which can be carried out by the present staff.

The result of the two years' working has amply justified the existence, and emphasized the need, of a Water Service, and it is to be hoped that, as soon as conditions permit, means will be found for its extension, with a view not only to the control and improvement of existing supplies, but also to the study of the many problems connected with drinking water in Egypt.

August 14, 1917.

(Signed) C. TODD.

## 5.—VACCINE INSTITUTE.

As will be seen from the following figures, the amount of vaccine lymph issued in 1917 was greater than in any of the six preceding years :—

	Doses.
1911... ..	532,836
1912... ..	576,210
1913 .. ...	771,361
1914... ..	1,025,896
1915... ..	961,665
1916... ..	1,222,600
1917... ..	1,558,677

The high figure of 1917 was due chiefly to two reasons :—

1. The decision of the Department to replace arm-to-arm vaccination by calf lymph vaccination throughout Egypt.
2. The vaccination of all Egyptian labourers recruited for the British Army.

The issue during 1917 was made up as follows :—

	Doses.
Public Health Inspectors ( <i>Bandars</i> ) ... ..	283,030
"        "        "        (villages) ... ..	343,303
Extra to Public Health Inspectors ... ..	231,439
Egyptian Army ... ..	46,166
Ministry of Waqfs ... ..	1,920
Ministry of Education ... ..	13,325
Prisons Department ... ..	1,115
Provincial Councils ... ..	2,125
Suez Canal Company ... ..	2,590
Alexandria Municipality ... ..	124,300
British Army ... ..	310,841
Miscellaneous (gratis) ... ..	5,047
Sudan Government ... ..	143,635
Miscellaneous sales ... ..	49,841
<b>TOTAL ... ..</b>	<b>1,558,677</b>



With the exception of the last two issues (Sudan Government and Miscellaneous sales) all other issues were free of charge.

As vaccination is compulsory under the Egyptian laws and regulations, it is very desirable that every facility should be given to medical men in the way of obtaining an adequate supply of reliable vaccine. The Department is therefore arranging that in future vaccine will be supplied gratis to all registered medical practitioners in Egypt. It has up till now been the practice of pharmacists to keep a stock of vaccine for sale to medical men or to the public. This practice is most undesirable, as the pharmacist usually had no means of keeping the lymph at a suitable temperature, and purchasers of the lymph had no guarantee that the lymph was active. It has therefore been decided that in future no lymph will be issued except to medical men.

In Cairo arrangements have been made by the Medical Officer of Health that supplies of lymph will be kept in each qism, where they can be obtained by any medical man *gratis* on written demand.

In this way a free supply of reliable lymph will always be immediately available.

A sudden diminution in the activity of the lymph, without apparent reason, necessitated the destruction of twelve batches, and some difficulty was experienced in obtaining a fully active strain. It is interesting that, whilst the activity for children dropped to a very low point, the lymph remained highly active for the buffalo calves, giving good typical pustules with many secondary pustules.

Fresh seed vaccine, both glycerinated and lanolinated, obtained from England gave very poor results.

Passage through the rabbit, by Calmette's method, was also unsatisfactory.

A good strain was finally obtained by retro-vaccinations, lymph from typical pustules in healthy children being chosen for the inoculation of the calves.

The laboratories are much indebted to the Medical Officer of Health for the City of Cairo and to the Medical Officers of the Cairo Qisms—particularly that of Sayeda Zeinab—for their help in this matter, and particularly for carrying out careful tests of the activity of the various strains of lymph.

An outbreak of cattle plague and of foot-and-mouth disease amongst the calves necessitated the destruction of one batch of vaccine and the thorough disinfection of the stables, etc.

Under the conditions obtaining in Egypt, and until proper isolation accommodation can be provided, such occurrences must be regarded as inevitable.

## 6.—SERUM CENTRIFUGING LABORATORY.

Serum bottles having arrived from England, this laboratory was re-opened and worked for some three months in centrifuging and bottling the remaining cattle plague serum, which, for want of bottles, had been stored in cold storage in demijohns. 154,021 doses (50 cc.) of cattle plague serum have been issued on the demand of the Veterinary Service.

The Egyptian serum in stock at the end of the year was 216,765 doses of 50 cc. This, together with 19,548 doses received from India, makes a total in stock at the end of the year of 236,313 doses of 50 cc.

The question of procuring a further supply of cattle plague serum was referred to the laboratories by the Ministry of Agriculture, and estimates of the cost of re-opening the Serum Institute at Abbassia were prepared. The possibility and cost of procuring the necessary serum from the Indian Government was also gone into.

Arrangements were also made for handing over, at the beginning of the next financial year, the charge of cattle plague serum and the cold-storage room to the Ministry of Agriculture. As soon as the arrangements are completed it is proposed that the Centrifuging Laboratory be converted into a special kitchen for the preparation of media, etc., the present requirements having outgrown the space at present available.





#### IV.—POSITION OF THE INJURIES.

69 cases were bites on the head; 361 cases were bites on naked skin, of which 149 were serious and 212 slight; 214 cases were bites through clothing.

#### V.—NOTES ON THE ANIMALS INFLECTING THE BITES.

1. It is to be noted that the number of persons bitten does not correspond to the number of animals causing the bites reported by the Veterinary Service, as in several cases one animal caused the injury to more than one person.

2. As a result of their observation by the Veterinary Service, 261 animals, having bitten 266 persons, were found to be non-rabid.

3. Experimental inoculation of rabbits undertaken at the Institute showed that 44 animals (38 dogs, 4 cats, and 2 wolves), having bitten 24 persons, were healthy.

4. In a certain number of cases definite diagnosis could not be established, and these cases are considered as suspect. The details are as follows :—

211 animals escaped and could not be found.

40 animals were killed and the carcasses destroyed.

66 brains of animals arrived at the Institute in a state of decomposition and no investigation was possible.

7 animals remained suspect, the rabbit inoculation being inconclusive.

The total of suspected animals is therefore 324.

5. Rabies was considered to be proved in the case of 92 animals, having bitten 219 persons. The diagnosis was determined by :—

Veterinary inspectors in the case of 27 animals (23 dogs, 1 horse, 1 donkey, and 2 cats), having bitten 82 persons ;

Rabbit inoculation in the case of 65 animals (60 dogs, 3 cats, 1 wolf, and 1 donkey), having bitten 137 persons.

6. In the case of 9 animals, having bitten 19 persons, positive diagnosis of rabies is presumed by the death of one or more of the persons bitten.

#### VI.—METHOD OF TREATMENT.

No change was introduced during the year into the method of preventive vaccination and serotherapy described in the 1916 Report.

#### VII.—STATISTICS.

In accordance with the practice in other antirabic institutes, the statistics only comprise deaths occurring more than fifteen days after the treatment was completed.

Amongst the persons treated in 1917 there occurred six deaths. Table I attached gives the names and other particulars concerning each of these cases. The corrected mortality rate, representing the cases in which the treatment failed, is therefore 0·9 per cent.

In addition to the above, it is necessary to record the death of six other persons who died either during treatment or less than fifteen days after its completion. The gross mortality, comprising all deaths, is therefore 1·8 per cent.

Table II gives a classification of the cases treated and the mortality rate.

TABLE XLVI.—NOTES ON PATIENTS WHO DIED IN 1917.

Serial Number.	NAME OF PATIENT.	Age.	Sex.	Place where the Accident occurred.	Position of Injuries.	Nature and Number.	Bitten by	Date bitten.	Dates of Treatment.	Date of Death.	Place of Death.
7467	Ahmed Said... ..	45	m.	Ezbet el Nuzha, Moharrem Bey, Alexandria.	Nose.	1 very severe.	Wolf. Diagnosis suspect.	Jan. 22.	Jan. 24 to Feb. 13.	April 3:— 70 days after the bite. 48 " " treatment.	Residence.
7456	Mohamed Hassan Awaga.	55	m.	Bishet Kaid, Hihya district, Sharqīya.	Right foot.	2 severe.	Dog. Diagnosis positive.	Jan. 17.	Jan. 18 to Feb. 7.	April 6:— 78 days after the bite. 57 " " treatment.	"
7676	Mohamed Shams el Din.	27	m.	Kattamah, Tanta district, Gharbiya.	Forehead, left eyebrow, nose.	1 severe. 2 slight severe. 1 slight.	Dog. Diagnosis impossible	Mar. 30.	April 1 to April 21.	May 10:— 40 days after the bite. 18 " " treatment.	"
7723	Sayed Shaaban ... ..	5	m.	Abu Raya, Talkha district, Gharbiya.	Chin.	2 severe.	Dog. Diagnosis impossible.	April 19.	April 21 to May 11.	June 3:— 45 days after the bite. 22 " " treatment.	"
7811	Hussein Abdallah ... ..	38	m.	Banadf, Minyet el Qamh district, Sharqīya.	Nose.	1 severe. 5 slight.	Dog. Diagnosis impossible.	May 20.	May 22 to June 11.	July 1:— 41 days after the bite. 19 " " treatment.	"
7506	Naasah b. Abdel Megid	12	f.	Katama el Soghra, Faqūs district, Sharqīya.	Head, lower hip, left forearm, chest.	1 severe. 2 slight. 1 severe. 1 slight severe.	Dog. Diagnosis impossible.	Feb. 2.	Feb. 5 to Feb. 25.	September 2:— 211 days after the bite. 188 " " treatment.	"



TABLE XLVII.—RESULTS OF ANTIRABIC TREATMENT IN CAIRO DURING 1917.

	INJURIES ON THE HEAD.			INJURIES ON NAKED SKIN (Head excepted).			INJURIES THROUGH CLOTHING.			TOTALS.		
	Treated.	Died.	Mortality per Cent.	Treated.	Died.	Mortality per Cent.	Treated.	Died.	Mortality per Cent.	Treated.	Died.	Mortality per Cent.
Class A ... ..	17	0	0·0	91	1	0·9	48	0	0·0	156	1	0·6
„ B ... ..	9	0	0·0	46	0	0·0	27	0	0·0	82	0	0·0
„ C ... ..	43	5	11·6	224	0	0·0	139	0	0·0	406	5	1·2
	69	5	7·2	361	1	0·2	214	0	0·0	644	6	0·9

Class A.—The animal causing the bite was proved to be rabid by experimental inoculation, or by the development of rabies in patients bitten.

Class B.—The animal causing the bite was declared to be rabid by a veterinary surgeon.

Class C.—The animal causing the bite was suspected of rabies.

VI.—REPORT ON MEDICAL COMMISSIONS.

1.—CENTRAL MEDICAL COMMISSION.

During 1917, 6,773 medical certificates have been issued by the Central Medical Commission, an increase of 1,740 over 1916.

115 employees were invalided on account of bilharziasis and its sequelæ.

The number of certificates issued by the Central Medical Commission during the last five years was as follows:—

1913...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,013
1914...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,776
1915...	...	...	...	...	...	...	...	...	...	...	...	...	...	4,682
1916...	...	...	...	...	...	...	...	...	...	...	...	...	...	5,033
1917...	...	...	...	...	...	...	...	...	...	...	...	...	...	6,773

2.—PROVINCIAL MEDICAL COMMISSIONS.

As will be seen from the attached table, 8,773 medical certificates were issued by the eighteen Provincial Medical Commissions during 1917, an increase of 746 over last year.

TABLE XLVIII.—ANNUAL RETURN OF MEDICAL EXAMINATIONS MADE BY THE CENTRAL MEDICAL COMMISSION OF CAIRO DURING THE YEAR 1917.

MONTH.	OBJECT OF MEDICAL EXAMINATION.								CAUSES OF REJECTION OF CANDIDATES APPLYING FOR ENTRY TO SERVICE.							
	NUMBER OF CASES.								DISEASES OF							
	For Admission to Service.	For Sick Leave.		For Invaliding from Service.	For Determination of Age.	Other Examinations if any.		TOTAL.	Defective Vision.	Urinary System.	Respiratory System.	Circulatory System.	Nervous System.	Digestive System.	Other Miscellaneous Diseases.	TOTAL.
		Granted.	Refused.													
January ...	336	96	4	81	9	3	4	520	85	58	3	16	—	—	—	162
February	185	101	3	89	13	4	3	382	45	29	1	7	—	—	1	83
March ...	277	127	10	85	12	5	2	496	59	31	1	26	—	—	1	118
April ...	274	141	5	74	16	4	8	501	68	43	—	15	—	—	3	129
May... ..	319	170	12	82	19	3	3	577	82	32	—	10	—	—	2	126
June ...	281	150	10	98	16	2	24	555	67	27	—	10	—	—	2	106
July... ..	353	153	10	134	13	2	4	646	65	37	—	12	—	—	4	118
August ...	196	175	11	305	33	5	2	683	50	24	2	9	—	—	—	85
September	295	145	10	173	13	3	3	619	59	33	—	11	1	—	1	105
October	242	191	15	222	11	5	1	661	53	20	1	8	—	—	4	86
November	257	160	11	178	15	13	3	611	57	30	2	13	—	—	1	103
December	198	140	12	172	4	7	5	522	53	18	2	6	—	—	2	81
TOTAL ...	3,213	1,749	113	1,693	174	56	62	6,773	743	382	12	143	1	—	21	1,302

TABLE XLIX.—ANNUAL RETURN OF MEDICAL EXAMINATIONS MADE BY THE CENTRAL AND PROVINCIAL MEDICAL COMMISSIONS DURING THE YEAR ENDING ON DECEMBER 31, 1917.

COMMISSIONS.	OBJECT OF MEDICAL EXAMINATION.					TOTAL	CAUSES OF REJECTION OF CANDIDATES APPLYING FOR SERVICE.							TOTAL.	
	NUMBER OF CASES.						DISEASES OF								
	For Admission to Service.	For Sick Leave.		For Invaliding from Service.	For Determination of Age.		Other Examinations if any.	Defective Vision.	Urinary System.	Respira- tory System.	Circula- tory System.	Nervous System.	Digestive System.		Other Miscella- neous Diseases.
		Granted.	Refused.												
Central Medical Com.	3,213	1,749	113	1,693	174	62	743	382	12	143	1	—	21	1,302	
Alexandria...	472	289	27	268	49	101	68	17	—	2	—	—	—	87	
Suez ...	78	51	4	20	7	3	17	11	—	—	—	—	2	30	
Port Said ...	61	22	2	58	25	1	11	—	—	—	—	—	5	16	
Damietta ...	10	26	—	34	16	1	3	2	—	—	—	—	—	5	
Beheira ...	144	464	60	233	68	2	46	16	2	2	—	—	8	74	
Gharbiya ...	79	550	11	671	21	—	15	4	—	1	—	—	4	24	
Minûfiya ...	248	182	12	503	159	10	61	10	—	1	—	—	—	72	
Daqahliya ...	115	374	19	200	98	22	24	10	1	1	—	—	—	36	
Sharqiya ...	115	293	27	192	65	—	26	12	—	2	1	—	—	41	
Qalyûbiya ...	94	132	22	44	13	—	19	22	1	3	—	—	5	50	
Gîza ...	65	178	8	103	37	—	23	—	—	—	—	—	1	24	
Faiyûm ...	82	144	17	66	28	—	25	8	—	—	—	—	1	34	
Beni Suef ...	83	124	8	60	23	12	23	10	—	—	—	—	1	34	
Minya...	95	147	4	163	59	—	22	4	—	—	—	—	—	26	
Asyût ...	85	197	11	146	42	5	16	—	—	1	—	—	3	20	
Girga ...	67	177	12	151	65	—	9	1	1	2	2	—	3	18	
Qena ...	63	75	7	129	52	—	10	—	—	—	—	—	1	11	
Aswân...	17	50	1	46	16	—	—	—	—	—	—	—	1	1	
TOTAL ...	5,186	5,224	365	4,780	1,211	219	1,161	509	17	158	4	—	56	1,905	



## VII.—REPORT ON THE INSPECTORATE OF PHARMACIES.

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During the year it has been possible to carry out the work of the Inspectorate more efficiently; by reason of the appointment of an Assistant Chief Inspector. The service is, however, in need of still more inspectors, as the number of pharmacies increases every year (from 336 in 1916 to 369 in 1917), and in order to exercise a proper control over every person holding an authorization to deal in poisons (see table).

*Opium.*—The question which has more especially occupied the attention of the Inspectorate is that of the existing legislation concerning Egyptian opium.

Although the cultivation of poppies is unrestricted, the commerce in opium obtained therefrom is governed by means of special authorizations granted to certain individuals to purchase Egyptian opium solely for export. From information received annually from the Ministry of Agriculture it has been noticed that the number of feddâns devoted to the cultivation of poppies increases every year, the number in 1917 being 1,379. None of the authorized dealers has purchased any opium, and consequently no export has taken place. It is very evident, therefore, that a clandestine commerce is being carried on in contravention of the regulations in force, as it is difficult to believe that the cultivators are storing their crops indefinitely.

The Chief Inspector of Pharmacies has published (under instructions from the Public Health Administration) a carefully compiled treatise on the subject of Egyptian opium, and it is hoped that the question will again receive consideration. It would be preferable either to exercise a proper control over the cultivation of poppies and the disposal of the opium, or else leave the commerce of opium entirely free in the country. It has come to the knowledge of the Inspectorate that the Ministry of Agriculture is also considering the question, and it proposes—on the recommendation of this Department—to prohibit the cultivation of poppies during the war and to arrange, later on, effectually to control the trade in opium.

In the event of this question being properly studied, the decisions taken at the International Commission on opium at the Hague in 1911 might usefully be considered.

Contraventions for illegal traffic in opium are very frequent. During 1917 twenty-three *procès-verbaux* of contravention were drawn up, twenty of which led to conviction and sentence, two to acquittal, and one was filed.

Satisfactory inspections of premises where native dealers keep their stocks are very difficult to carry out; in fact, almost impossible. They are, for the most part, *attârs* who, almost without exception, keep a small quantity of opium hidden in their shops. As a rule, this is easily discovered, but the reserve stock is usually kept at their private houses; the inspection of such places demands certain formalities, and hardly ever gives satisfactory results. The maximum penalty inflicted by the law is closure of the shop and a fine not exceeding P.T. 100, and the confiscation of the opium seized during the inspection. These quantities are usually insignificant, and the profit obtained by the dealers from this illegal traffic permits them to submit cheerfully to the fine and closure of the shop, which only obliges them to move to other premises.

*Cocaine.*—This evil still continues in the country. Full particulars were given in the Report for 1916. The Inspectorate regrets to add that certain medical practitioners are giving their assistance to those who traffic illegally in cocaine. It has been proved that a certain number of doctors habitually write prescriptions for cocaine in quantities varying from five to one hundred grammes, stating that it is for their personal use in their private clinics, though it would appear impossible for them to use such large quantities in their daily practice.

From information received it is known that this cocaine is disposed of to pharmacists, proprietors of pharmacies, and other traffickers, who sell it as they please, and the fact that pharmacists are not obliged to enter it in the registers kept for purposes of control renders the Inspectorate helpless. A similar abuse is now being carried on with the pharmaceutical extract of *Cannabis indica* (*hashîsh*), since the time Martial Law restrained the use of *hashîsh* among the population of Egypt.



*Pharmacists and Assistant Pharmacists.*—The country is suffering from a serious shortage of pharmacists and assistant pharmacists. Since the outbreak of war the number of foreign pharmacists applying for authorizations to practise their profession in Egypt has been insignificant. All pharmacists who were enemy subjects have been expelled, many of those of the Allied countries have been mobilized, and others have died. In addition to this, owing to the influx of troops, many new pharmacies have been opened (*see table*), necessitating the employment of qualified managers, and, in consequence, the country is unable to find enough pharmacists for its needs. The number of those who obtain their diploma at Qasr el 'Aini (eight or ten per year at the most) is not sufficient to fill the gaps. The consequences were not long in making themselves felt. At the present time many pharmacies have been obliged to transform themselves into simple drug stores, owing to the impossibility of finding qualified managers, and even the Government has found great difficulty in recruiting pharmaceutical staff for the hospitals and the central stores. It is a question which merits attention.

A similar shortage exists as regards assistant pharmacists. The Law No. 20 of 1911 has restricted the apprenticeship of assistant pharmacists to a limited number of pharmacies, with the result that the number of persons able to obtain training is comparatively small. Proposals have been made by the Public Health Department to the Ministry of the Interior with a view to modifying Article 5 of the Law and to authorize every pharmacy which gives satisfaction on inspection to have apprentice assistant pharmacists.

This solution of the difficulty would greatly relieve the situation, as pharmacies are unable to carry on without a certain number of assistants.

*General.*—In spite of the war the provisioning of the country with drugs has proceeded normally, and it has not been necessary to deplore the absence of this or that essential medicine. As mentioned in the last report, this state of affairs is mainly due to the efforts of the Egyptian Government, and also to the facilities accorded by the Allied countries, which have been producing chemical and medical products. The re-exportation from Egypt of drugs remains prohibited, except in cases of absolute necessity, such as hospitals and charities, and also where the exportation would not cause a shortage locally.

The total number of pharmacies existing at the end of the year 1917 was 369, of which 195 belonged to qualified pharmacists, and 174 to unqualified persons. Unfortunately, the proportion of pharmacies owned by unqualified persons still continues very high, being 47 per cent of the total.

During the year, forty-two pharmacies have been closed (or transformed into simple drug stores), eighteen of which belonged to qualified pharmacists, and twenty-four to unqualified persons. Forty-three new pharmacies have been opened, twenty-one by qualified pharmacists, and twenty-two by unqualified persons.

TABLE L.—STATISTICS CONCERNING PHARMACIES AND AUTHORIZED POISON DEALERS  
FOR THE YEAR 1917.

	CAIRO.		ALEXANDRIA.		PROVINCES.		TOTAL.	
	Pharmacies owned by		Pharmacies owned by		Pharmacies owned by		Pharmacies owned by	
	Qualified Pharmacists.	Unqualified Persons.	Qualified Pharmacists.	Unqualified Persons.	Qualified Pharmacists.	Unqualified Persons.	Qualified Pharmacists.	Unqualified Persons.
<i>Pharmacies :—</i>								
Existing at end of year... ..	85	67	45	33	65	74	195	174
Inspected and found satisfactory... ..	34	28	22	19	26	28	82	75
Inspected and found unsatisfactory ... ..	6	6	1	1	1	3	8	10
Inspected and found mediocre ... ..	23	15	17	12	14	12	54	39
Opened during the year ... ..	10	13	5	5	6	4	21	22
Closed " " ... ..	11	9	4	6	3	9	18	24
<i>Procès-verbaux</i> for offences against the Law of 1904 and Law No. 20 of 1911	16	34	8	5	14	26	38	65
Sentenced ... ..	15	28	6	4	8	20	29	52
Acquitted ... ..	—	2	—	—	1	3	1	5
Filed ... ..	1	4	1	1	5	2	7	7
Pending ... ..	—	—	1	—	—	1	1	1



TABLE LI.—(continued.)

	CAIRO.	ALEXANDRIA.	PROVINCES.	TOTAL.
<i>Authorised Poison Dealers :—</i>				
Number of authorisations granted up to the end of 1917 ... ..	75	42	40	157
Tableau I Wholesale ... ..	20	14	11	45
„ II „ ... ..	17	13	6	36
„ II Retail ... ..	20	13	15	48
Provisional for purchase of Opium for export ... ..	9	2	5	16
Provisional for purchase of poisonous drugs grown in the country for export	9	—	3	12
<i>Procès-verbaux</i> for illegal sale of poisons and infractions of the Pharmacy Law against druggists and private persons other than pharmacists or proprietors of pharmacies. }	18	3	46	67
Sentenced ... ..	16	1	37	54
Acquitted or cases filed ... ..	2	2	9	13

(1) Ninety-three samples of medicine have been taken and submitted to analysis with the following results :—

- (a) Five warnings were sent (Cairo, one qualified pharmacist and two unqualified persons ; provinces, one qualified pharmacist and one unqualified person).
- (b) Sixteen *procès-verbaux* of contravention were drawn up against qualified pharmacists, resulting in eight sentences and one acquittal (Cairo), one acquittal (Alexandria), and four sentences and two acquittals (provinces).
- (c) Six *procès-verbaux* of contravention were drawn up against unqualified proprietors, resulting in two sentences, one acquittal, and one pending (Cairo), and two acquittals (Alexandria).
- (d) Forty-four samples were found to be of good quality.

In cases where more than one sample is taken from one pharmacy, and all samples prove on analysis to be of inferior quality, only one *procès-verbal* is drawn up.

(2) Ten samples of *manzûl* have been analysed, four being found to contain no narcotics, and six were found to contain poisons. *Procès-verbaux* were drawn up, and resulted in five sentences and one acquittal (provinces).

As compared with last year, there is a considerable reduction in the number of *manzûl* samples analysed, owing to the fact that the Martial Law relating to *hashîsh* deals with contraventions for this offence, as *manzûl* usually contains *hashîsh*.

(3) Eleven authorizations to practise as pharmacists have been granted to holders of the following diplomas : eight Egyptians, two Swiss and one Turkish.

No authorizations have been granted to assistant pharmacists.

(4) Nine *procès-verbaux* have been drawn up for illegal sale of cocaine and morphine, six against qualified pharmacists, and three against unqualified persons, resulting in eight sentences, one acquittal, and one pending (Cairo) ; one sentence, one acquittal, one filed, and one pending (Alexandria) ; and one acquittal (provinces).

(5) One warning was sent to a qualified pharmacist in Alexandria for an irregularity found in his pharmacy.

The points emphasised in this report, as well as in the preceding ones, clearly show the difficulties with which the Inspectorate has to contend in the application of the Pharmacy Law. The defects in the law which the Inspectors experience in its daily application prove the urgent necessity of a complete revision. It is quite time that a law, inspired by an experience of more than thirteen years, and by the great progress which has taken place during this time in other countries, should be instituted in order that the pharmaceutical profession should be raised to the position it merits.



## VIII.—REPORT ON THE ENGINEERING BRANCH.

The report on this branch of the Department's work is drawn up with reference to the financial year (April 1, 1917, to March 31, 1918).

### 1.—SPECIAL CREDITS FOR NEW WORKS.

The following table shows various details concerning special credits granted for new works and the sums disbursed.

TABLE LII.—CONSTRUCTIONAL WORK, ETC.

NAME OF WORK.	Sum granted in Budget 1917.	Total Grant.	Expenditure from April 1, 1917, to March 31, 1918.	Total Expenditure to March 31, 1918.
	L. E.	L. E.	L. E.	L. E.
1. Alexandria Hospital :—				
(a) Completion of pavilion for 90 beds	319	9,800	285	7,842
(b) Completion of nurses' house ...	91	2,800	79	2,286
(c) New shelter for out-patients and new roads in grounds ... ..	1,140	—	1,081	1,081
2. Abbassia Fever Hospital :—				
(a) Completion of 1915 programme ...	2,300	15,300	137	9,019
(b) New stores ... ..	660	—	487	487
3. Hôd el Marsûd Hospital :—				
Remodelling ... ..	3,500	—	3,454	3,454
4. Central stores :—				
Construction of a second storey for accommodation of inventory clerks	1,500	—	1,060	1,060
5. Qasr el 'Aini Hospital :—				
Purchase of hot-water boiler and wash- ing machines ... ..	270	—	—	—

The following brief notes give certain information concerning the above works :—

*Alexandria Hospital.*—Completion of pavilion of ninety beds. This building was constructed and occupied in 1913. The credit granted in 1917 was for completion of painting, which could not be executed before, owing to the premises having been occupied by military cases. The painting was executed departmentally.

*Nurses' House.*—This building was constructed in 1914 and occupied. The credit granted in 1917 was for the completion of painting, which could not be done before, owing to these quarters having been occupied by extra nurses for military cases. This painting was executed departmentally.

New shelter for out-patients and new roads in grounds.

A new verandah was constructed in *béton armé* for the out-patients at a cost of L.E. 355, plus L.E. 89 for benches. This work was completed on October 19, 1917. The main roads to the hospital were macadamized at a cost of L.E. 637. This latter work was undertaken by the Alexandria Municipality.

*Abbassia Fever Hospital Extensions.*—Completion of 1915 programme.

The existing roads have been repaired and new roads made for the new pavilions, which were constructed in 1916.

*New Stores.*—Additional stores have been constructed. The work was completed and handed over on January 1, 1918.

*Hod el Marsûd Hospital, remodelling, etc.*—This hospital has been enlarged, remodelled, and completely renovated. New quarters have been erected for the matron, electric light and an improved water supply have been installed, the drains have been connected to the Cairo sewerage system, percolating pits have been abolished, a rubbish destructor has been built, and the courtyards have been macadamized and footpaths asphalted.

*Central Stores, construction of a second storey.*—A second storey has been constructed for accommodation of inventory clerks. This work was completed on February 12, 1918.

*Qasr el 'Aini Hospital, purchase of new hot-water boiler and new washing machine.*—The existing washing machines have been at work since 1903. A new washing machine was ordered from England, but, owing to present circumstances, could not be delivered. The existing machines have been repaired to meet the requirements of the hospital until the new one can be supplied.

The steam boilers at this hospital have been fitted with crude-oil burners at a cost of L.E. 70. An economy of some L.E. 600 per year is anticipated at the present price of coal.

## 2.—REPAIRS.

The repairs and furniture credit for the budget year 1917–1918 were L.E. 5,976 + 800 = L.E. 6,776.

The expenditure was: repairs, L.E. 5,976; furniture, L.E. 774·407 Mills.

The following repairs were effected:—

TABLE LIII.—REPAIRS, ETC.

NAME OF BUILDING.	Repairs.		Furniture.		NAME OF BUILDING.	Repairs.		Furniture.	
	L.E.	M.	L.E.	M.		L.E.	M.	L.E.	M.
Abbassia Fever Hospital.	689	722	—		<i>Brought forward</i> ...	4,426	490	552	710
Alexandria Hospital... ..	110	035	—		Asyût Ophthalmic Hospital	4	690	—	
Asyût Hospital ... ..	16	464	—		Beni Suef Oph. Hospital...	2	495	—	
Aswân Hospital ... ..	10	420	—		Damanhûr Ophthalmic Hospital ... ..	1	400	—	
Benha Hospital... ..	9	736	104	143	Faiyûm Oph. Hospital ...	17	118	—	
Beni Suef Hospital ... ..	22	172	1	950	Mansûra Oph. Hospital ...	3	110	—	
Damanhûr Hospital... ..	7	355	—		Minya Oph. Hospital ...	2	930	—	
Isna Hospital ... ..	10	980	—		Shibîn el Kôm Ophthalmic Hospital ... ..	79	040	—	
Faiyûm Hospital ... ..	7	275	—		Sohâg Oph. Hospital ...	2	806	—	
Hôd el Marsûd Hospital...	13	225	5	782	Tanta Oph. Hospital ...	343	888	—	
Qasr el 'Aini Hospital ...	1,333	767	291	840	Zagazig Oph. Hospital ...	194	055	23	250
Qalyûb Hospital ... ..	74	687	—		Buildings, Central Administration ... ..	48	415	29	280
Mansûra Hospital ... ..	29	964	32	305	Institutes, Central Administration ... ..	175	812	—	
Minya Hospital... ..	16	593	—		Public latrines ... ..	24	035	—	
Qena Hospital ... ..	23	255	—		Disinfecting stations ...	130	884	102	189
Port Said Hospital and Infectious Hospital ...	433	757	24	794	Scavenging and Watering Service ... ..	190	505	—	
Suez Hospital ... ..	180	266	—		Public Health Offices, etc.	32	554	28	863
Shibîn el Kôm Hospital ...	714	386	—		Miscellaneous ... ..	295	773	38	115
Sohâg Hospital... ..	15	660	—						
Tanta Hospital and Infectious Hospital... ..	109	039	—						
Zagazig Hospital and Infectious Hospital ... ..	597	732	91	896					
<i>Carried forward</i> ...	4,426	490	552	710	<i>TOTAL</i> ... ..	5,976	000	774	407



### 3.—WORKS PAID FOR BY OTHER ADMINISTRATIONS AND EXECUTED DEPARTMENTALLY.

The following works were executed departmentally and paid for by other Administrations:—

	L.E.
<i>On "Dépenses Militaires."</i>	
Lock Hospital, Ezbekiyya, sundry repairs ... ..	37
New Lock Hospital, Shubra, general repairs, painting, electric lighting and bell installation... ..	434
<i>Bureau des Mœurs</i> , Darb el Nûbi, sundry repairs and bell installation	33
Public Women's Hospital, Moharrem Bey, building kitchen... ..	17
<i>On Provincial Councils' Account.</i>	
Santa Ophthalmic Hospital ... ..	31
Mahalla el Kubra Ophthalmic Hospital ... ..	8
Kafr el Dauwâr Ophthalmic Hospital... ..	1
<i>On Ophthalmic Hospitals' Credit.</i>	
Sundry repairs, Travelling Ophthalmic Hospitals (Gîza, Fuwa, Benha).	9
Imbâba Ophthalmic Hospital ... ..	8
Qena Ophthalmic Hospital ... ..	7
<i>On Deposit from Shawarbi Pasha's Waqfs.</i>	
Qalyûb Hospital :—	
Repairs and painting ... ..	370
New doorway under staircase ... ..	6
New coal store ... ..	61

### 4.—SANITARY INSTALLATIONS.

(Calendar Year, January 1 to December 31, 1917.)

	Number.
<i>Government Buildings, Schools, Latrines, etc.</i>	
Examined, reported on, and approved... ..	24
<i>Etablissements Insalubres.</i>	
Examined and reported on ... ..	229
Approved ... ..	103
<i>Mosques.</i>	
Old Mosques (Private) examined and reported upon ... ..	397
New Mosques, plans approved ... ..	21
Wakfs Mosques, plans of sanitary installations approved ... ..	7



IX.—REPORT ON THE STORES BRANCH.

EXPENDITURE.

The following is a comparison of the budgetary estimates for the years 1916–1917–1918 :—

TABLE LIV.—COMPARATIVE BUDGETARY ESTIMATES.

	1916	1917	1918
	L.E.	L.E.	L.E.
Equipment... ..	19,857	43,460	32,481
Instruments ... ..	4,223	7,565	10,743
Drugs and special chemicals ... ..	20,196	20,425	19,162
Epidemic ... ..	6,783	24,397	35,233
Clothing ... ..	720	929	425
Repairs ... ..	2,441	4,030	4,326
Transport ... ..	733	200	2,100
Forage ... ..	681	639	888
TOTAL ... ..	55,634	101,645	106,358

	1915	1916	1917
	L.E.	L.E.	L.E.
Stores bought locally ... ..	30,777	54,000	9,015
„ abroad ... ..	14,946	34,000	88,800
1,900 orders have been dealt with.			

BUDGET.

Before introducing the Budget for the year 1918–1919 the entire system of estimating stores' expenditure, in relation to the different sections of the Department, was taken under review. It was felt that the general headings of expenditure shown above afforded no information to the Department concerning the consumption of stores by the various Sections, nor did they provide a sufficiently detached classification of control for the Director of Stores.

A system was elaborated whereby it was proposed to present store budgets for each of the following sections :—Section II, Section III, Section IV, Public Health Laboratories, General Expenditure. At the same time, a more detailed classification of the budget was framed, and as contract schedules had already been remodelled to ensure a homogeneous classification of articles for the convenience of tenderers, an attempt was accordingly made to combine all these features in one single system. This was only partially attained. For the system to be wholly successful it was essential that the classification of articles in the stores ledgers, in the stores estimates, and in the contract schedules should be the same. It is obvious that the gain in efficiency of control and work would be considerable. Unfortunately, the scheme raised objections on the part of the Ministry of Finance, and it was only possible to introduce a modified classification of the estimates and carry out the revised contract schedules. At present there is a different classification in store ledgers (Book 118 and 115), another classification in the estimates and another in contract schedules. It is hoped to overcome a considerable amount of this divergence when the new stores' catalogue is issued (awaiting printing), which will bring stores books more into line with the estimates.

The following replica of the stores' estimate will indicate the importance of having a single efficient system instead of three different classifications :—

*Equipment.*

Permanent, by contract.  
Permanent, locally.  
Consumable, by contract.  
Consumable, locally.  
Clothing, permanent, by contract.  
Tentage, consumable, by contract.  
Tentage, consumable, locally.  
Motor cars and motor cycles, bicycles, permanent, special and local.  
Running material for motor cars and cycles, and spares for bicycles.

*New Demands.*

Permanent, by contract, for Qasr el 'Aini Hospital.  
Disinfecting apparatus (Cairo City Health), permanent, special.  
Permanent, by contract  
Permanent, locally  
Consumable, by contract  
Consumable, locally. } Frontier Districts Administration.

*Epidemic.*

Permanent, by contract.  
Consumable, by contract.  
Permanent, special and locally  
Consumable, special and locally } and new demands, permanent, by contract.  
Consumable, by contract.

*Drugs.*

Permanent, by contract.  
Consumable, by contract.  
Consumable, special.  
Special chemicals for the P.H.D. laboratories.  
Consumable, locally.

*New Demands.*

Permanent, by contract.  
Consumable, by contract.  
Special and locally. } Frontier Districts Administration.  
Consumable, by contract. (Epidemic Section.)  
Consumable, by contract. (Hospital Laboratories.)

*Instruments.*

General surgical instruments, permanent.  
General surgical instruments, consumable.  
Eye instruments, permanent.  
Eye instruments, consumable.  
Sundries and appliances, permanent.  
Sundries and appliances, consumable.  
*x*-Ray accessories, permanent.  
*x*-Ray accessories, consumable.  
Laboratory articles, permanent.  
Laboratory articles, consumable.

*New Demands.*

Frontier Districts Administration.  
Asyût hospital.  
Damanhûr hospital.  
Benha hospital.  
Suhag hospital.  
Faiyûm hospital.  
Qasr el Aini hospital.



Aswân hospital.  
 Tanta hospital.  
 Qalyûb hospital.  
 Qena hospital.  
 Isna hospital.  
 Shibîn el Kôm hospital.  
 Fever hospital, Abbassia.  
 Damietta hospital.  
 Beni Suef hospital.  
 Minya hospital.  
 Zagazig hospital.  
 Mansûra hospital.  
 Port Said hospital.  
 Alexandria hospital.  
 Instruments and apparatus for P.H.D. Laboratories, permanent.

*Laboratories.*—A regular stores' estimate was also introduced for the Public Health Laboratories. Owing to the impossibility of foreseeing, eighteen months in advance, the nature of demands which would arise for analysis, epidemics, etc., the framing of a regular budget presented considerable difficulty. The following method and chapters of expenditure were finally adopted :—

- |                 |     |     |     |     |   |
|-----------------|-----|-----|-----|-----|---|
| I. Chemicals    | ... | ... | ... | ... | Based on an establishment and wastage.              |
| II. Instruments | ... | ... | ... | ... | Annual estimate (annual average issues disregarded) |
| III. Glassware  | ... | ... | ... | ... | A single money grant (L.E. 400).                    |

*Frontier Districts Administration.*—The medical services of the Frontier Districts Administration necessitated separate estimates to the amount of L.E. 15,000. These were inserted in the Stores' Budget of the Department under the form of separate stores' estimates, which may probably disappear as such when issues have been made over a period of three years.

*Motor Cars.*—Other special items of expenditure were the grant for motor vehicles and the very large expenditure on tentage.

The number of motor cars and motor bicycles is rapidly increasing, but appears to be still far below the requirements of the Department. The establishment at present is nine motor cars and thirty-one motor bicycles.

*Tentage.*—For tentage the sum of L.E. 9,230 was approved for epidemic requirements alone. This large item is due to the circumstance that mat hutting is not weather proof in the Delta and had consequently to be replaced by something more substantial. Although the initial cost is considerable, the longer life of tentage, as compared with huts, will effect a substantial economy to the Government in the long run.

*Vaccination.*—The increased vaccination which was undertaken during the year also led to additional expenditure, 500,000 vaccine tubes in lieu of the estimated 50,000 having to be procured, besides other special equipment for keeping vaccine at a cool temperature in each Markaz and Kism.

*Surgical Instruments.*—A special feature of the estimate was, further, the large item of L.E. 10,700 for "New Demands" in the expenditure on surgical instruments. This sum was allotted to provide deficient equipment and instruments outside of the routine articles. In reality it represents a deficiency in the surgical establishment of hospitals, and if hospitals are to be expected to have up-to-date equipment, "new demands" will remain a permanent feature of the Department's estimates. They include *x*-ray apparatus and new installations.

As regards this branch of surgical equipment, all hospitals with the exception of nine are now installed, but while the expenditure for replacing worn-out accessories, such as coils, transformers, tubes, etc., remains low in the first years, this item must gradually increase, when the necessity for a more uniform standardization of *x*-ray equipment will make itself felt.

Considerable difficulty has been experienced in obtaining expert mechanics for repairing the new installations, and this drawback has not yet been overcome.

## SUPPLIES.

The difficulty experienced in 1916 in obtaining stores became more accentuated in 1917. The restriction of transport, owing to submarine warfare, was felt very acutely by the Department, especially in the matter of drugs. In some instances the delay in receiving supplies amounted to over one year. To obtain suitable substitutes and maintain as high a standard of equipment as possible became a matter of considerable difficulty, which was further emphasised by the fact that many of the Department's standard articles were of enemy origin, notably so in glass and enamel ware. In many instances the home market is still below the quality of these articles, but the discrepancy seems to be gradually being overtaken.

Scarcely a single store contract was adequately filled by contractors, and as, unfortunately, no instructions or prevision were available to guide the Department in the special circumstances prevailing, a considerable amount of extra work was imposed in meeting the many legal and commercial problems which arose. At the same time, the need for stores largely increased to meet local military requirements, either directly or indirectly, and it is in a great measure due to the readiness of all units to economize wherever possible that the Central Stores was able to keep the Department going throughout the year.

*Home Contracts.*—The policy of getting into touch with the manufacturers, instead of securing supplies through middlemen, was further developed by organizing a series of standard samples to be shown in London (Sir Arthur Webb's office). This measure has been of the greatest utility, enabling a clear division to be made between local manufacturers and home products.

With normal circumstances again prevailing the advantage of the change should be still more marked.

It must, however, be noted that there is a possibility of the scheme being reversed should the Home Government decide rather to encourage a local market than to continue the policy of home firms supplying direct to clients abroad.

It should not be forgotten that Government supplies form a very small part of the trade of Egypt, and the policy of an Imperial institution at home to deal with British trade abroad appears to be more in the direction of developing foreign local markets.

*Standard Samples.*—A new sample store has been installed and filled, as far as possible, with samples to guide supply. The store now contains 850 samples. Formerly there existed no definite system of standard samples and but few samples.

*Analysis.*—The following table shows the increase in the number of analyses since 1914. Most of the samples examined by the Government Laboratory were textiles, which can only be adequately tested in a laboratory.

	1914	...	...	...	...	28	(including Engineering Section.)		
	1915	...	...	...	...	70	"	"	"
	1916	...	...	...	...	175	"	"	"
	1917	...	...	...	...	268	"	"	"
January	1918	...	...	...	...	83	(one month).		

## ORGANIZATION.

### CENTRAL STORES.

*Reserves.*—During the year a considerable amount of organization has been carried through.

Perhaps the most important change has been the unification of the Central Epidemic Store with the other stores of headquarters. Formerly a separate central store existed for epidemic requirements, financed by a special epidemic store grant. An anomalous situation was thereby created in that the epidemic store stocked the same articles as the other stores, employed separate contracts and orders, and obtained its supplies when necessary from the other stores by purchase. The result was a great duplication of work and a defective system of supply and of reserves, which did not correspond to the growing expansion of the epidemic service. The Central Epidemic Store was accordingly



abolished and, in its place, a Central Store for consumable articles only instituted. This involved a radical change in routine, in order that all requisitions for permanent stores should be dealt with by one store and all consumable requisitions issued by another. The gain has accordingly been a double one. The main difficulty, however, was to ensure adequate reserves for the Epidemic Service, and to avoid the danger that a common reserve might be exhausted by one section of the Department to the detriment of the others. This point touches one of the serious store defects of the Department, namely, that the normal reserve allowed by the Government is not sufficient to meet the emergencies of a Department of Public Health.

This reserve is twenty-five per cent of the annual quantities in the estimates. To meet the defect an increased reserve for a limited number of articles was strongly pressed, but authority could only be obtained to increase the reserve of articles confined to epidemic requirements. The reserve in the latter case was raised to forty per cent. At present the establishment for the Epidemic Section is fixed to deal with 5,700 patients at one time, with a reserve to meet a further 1,000 patients.

During the typhus epidemic (winter, 1917) the want of adequate reserves immediately made itself felt. Early in the year regular establishments had been worked out for the Epidemic Section of Abbassia Fever Hospital and Alexandria Hospital (Chatby). These sections were then definitely transferred to the Hospital Section, and the overlapping which had hitherto occurred disappeared. The typhus epidemic threw a heavy strain on the above hospitals, with the consequence that the reserve of necessary stores proved utterly insufficient. The whole of the epidemic reserve was drawn upon, and also stores which were earmarked to make up deficient equipments in provincial epidemic stores. A definite deficiency has therefore been created in the common reserve, especially in epidemic articles. This will be partly made good in 1919 by additional credits.

The permanent establishment for patients in huts at Abbassia is 400 beds, at Chatby 250 beds.

The epidemic provincial stores are still considerably below establishment, owing to the above reasons and to the non-arrival of stores from abroad.

*Vocabulary.*—With the revised classification of stores in the estimates and trade schedules it was necessary to compile a new catalogue of stores, in order that all store ledgers and requisitions would follow the same classification. The catalogue was completed towards the end of the year, but, owing to the dearth of paper, it has not been possible to have it printed. It contains 5,500 items, which required considerable revision, while, to facilitate reference, many items have been shown twice, *viz.*, in the order in which they appear in the ledgers and again in their more natural classification. When the catalogue is introduced it will be necessary to make new ledgers throughout the whole Department.

Prior to commencing the work, 550 articles were cancelled which were either obsolete or considered superfluous.

*Cholera Store.*—Up to 1917, cholera stores were kept partly by the Engineering Section and partly by the Central Stores. A transfer to the Central Stores was made and a definite cholera store established. The value of this reserve is L.E. 18,750.

*Hospitals.*—The store organization for controlling the movement of stores inside of hospitals was considerably modified. The original system has in its main feature been adhered to, but has been expanded to provide sufficient control. The details are given in Departmental Order No. 77.

The peculiar feature of all hospitals and epidemic stores is that they are at the same time a supplying store to their unit (like the Central Stores) and also a *chargé*, that is, the actual user. This anomaly makes it at times difficult to arrange a stores organization which will meet the needs of the Department and also fit into the Stores' Regulations. Hospitals at home are self-contained, having their own supplying store, from which issues are made to the hospital.

*Drugs.*—A system of control was instituted for provincial epidemic stores to meet the growing consumption of drugs. In lieu of frequent requisitions on the Central Store, small stocks of drugs were sent to the provinces and placed under the control of the hospital pharmacist. Details are given in Departmental Order 73, 1917.

The policy of having all Government Departments procure their drugs from our Central Stores appears to have been definitely established, as during the year the Department was called on to supply many new Departments to the extent of about L.E. 2,000. This is outside of those Departments which already purchase their stores off the Department's contracts, *viz.* Prisons, Coast Guards, Lunacy Division, and some Provincial Councils. The Egyptian State Railways Administration and the Ministry of Waqfs appear to be now the only Departments in Egypt purchasing their drugs directly.

CONTRACTS.

	1915	1916	1917
Number of contracts made during the year ... ..	130	100	115
Total value of contracts of the Department, including rations, etc. ...		L.E. 91,124	L.E. 146,792
Value of contracts for Central Stores :—			
Equipment ... ..		22,571	44,930
Drugs ... ..		16,125	11,280

The general adjudications of equipment and drugs for the year 1917–1918 were the largest experienced in the Department.

The following were the main items :—

EQUIPMENT.

	L.E.		L.E.
Bedsteads ... ..	1,812	Drawers ... ..	1,030
Blankets, brown... ..	864	Gallabias, W. ... ..	1,580
Blankets, white ... ..	1,245	Gallabias, B. ... ..	850
Sheets, bed ... ..	3,194	Wood ... ..	2,383
Slippers ... ..	865	Drums ... ..	170
Washing soap ... ..	1,120	Tents ... ..	9,230
Shirts ... ..	1,605		

DRUGS.

	L.E.		L.E.
Cyllin ... ..	2,173	Vaseline ... ..	395
Alum ... ..	1,295	Cotton wool ... ..	1,130
Castor oil ... ..	365	Gauze ... ..	4,280
Chloroform... ..	560	Lint ... ..	415
Mag. sulph. ... ..	235	Dressing ... ..	145
Sod. sulph. ... ..	105	Mackintosh... ..	115

GENERAL EQUIPMENT.

TABLE LV.—COMPARISON OF PRICES OF MAIN ITEMS FOR THE YEARS 1915, 1916 AND 1917.

Item No.	DESCRIPTION.	Rate in Milliemes.		
		1915	1916	1917
80	Bedsteads, 2nd class ... ..	2,230	4,600	4,350
104	Blankets, white woollen ... ..	550	850	622
107	„ brown „ ... ..	405	510	900
133	Boots, shawishes... ..	335	575	620
228	Cases for mattresses ... ..	318	550	440
416	Drawers, 2nd class ... ..	46	53	165
468	<i>Gallabias</i> , large ... ..	125	182	265
495	Gowns, hospital ... ..	685	1,080	1,100
547	Jackets, calico ... ..	61	82	96
569	Jerseys, blue ... ..	188	350	375
706	Mattresses, felt ... ..	192	440	304
765 a	Pannikins, aluminium ... ..	60	49	60
866	Pots, copper... .. per kilo.	115	—	593
981	Sheets, 2nd class ... ..	366	490	485
984	„ draw, thick ... ..	108	290	290
991	Shirts ... ..	54·5	75	82
1011	Shoes, <i>Tamurgis</i> ... ..	205	320	250
1037	Slippers ... ..	145	200	170
1190	Towels, white ... ..	64	130	130
1455	<i>Crin végétal</i> ... .. per kilo.	11	12	18
1594	Material No. 3 ... .. per mètre	21	24·5	77
1608	„ No. 17, bed ticking ... ..	69	150	102
1630	„ No. 39, blue flannel ... ..	265	360	370
1660	<i>Arachide</i> oil... .. per kilo.	57	70	70
1770	Soap, washing ... ..	35	49	42
1771	„ soft ... ..	34	55	40



TABLE LV—(continued).

CONTRACT.	RATES.						VALUE OF CONTRACT.			
	1915		1916		1917		1915	1916		1917
	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	L.E.	M.	L.E.
Petroleum ... .. per tin	0	140	—		—		420	595	000	351
Crude oil ... .. per kilo	0	005	—		—		110	172	000	290
Milk, in tins... .. "	0	029	0	045	0	048	232	540	000	684
Meat for Qasr el 'Aini Hospital:—										
Mutton ... .. "	0	060	0	055	0	080	2,500	3,566	000	2,900
Beef ... .. "	0	045	0	040	0	062				
Meat for Fever Hospital:—										
Mutton ... .. "	0	065	0	055	0	090				
Beef ... .. "	0	050	0	045	0	062				
Native bread:—										
Qasr el 'Aini Hospital ... .. "	0	010 <sup>3</sup> / <sub>4</sub>	0	009 <sup>1</sup> / <sub>2</sub>	0	022	—	—		—
Fever Hospital ... .. "	0	011	0	009 <sup>1</sup> / <sub>2</sub>	0	023 <sup>3</sup> / <sub>4</sub>	1,955	1,615	000	5,170
Bersîm, Scavenging and Water-										
ing Service ... .. per qantâr	0	033	0	035	0	035	815	906	000	907
Straw bedding ... .. per ton	1	350	1	100	1	280	513	396	000	350
Tibn (from Domains)... .. "	3	000	2	380	2	380	2,280	1,808	000	1,933
Rabbits for Antirabic Institute each	0	075	0	060	0	135	192	108	000	148
Rations for Cairo hospitals ... ..	—		—		—		8,172	13,908	820	9,700
Rations for provincial hospitals ... ..	—		—		—		24,160	32,492	647	33,590
Alcohol ... .. per kilo.	0	019 <sup>1</sup> / <sub>2</sub>	0	032 <sup>1</sup> / <sub>2</sub>	0	032 <sup>1</sup> / <sub>2</sub>	588	1,405	966	1,300
Ice... .. per block	0	019	0	036	0	018	225	507	750	765
Equipment, etc. ... ..	—		—		—		16,180	22,571	165	44,930
Drugs, general ... ..	—		—		—		9,472	15,604	480	24,340
Drugs, local adjudication ... ..	—		—		—		1,754	520	953	521
Coal and cotton seed cake... ..	—		—		—		5,108	2,212	000	5,080
Disinfecting drums ... ..	—		—		—		—	—		170
Wood ... ..	—		—		—		—	—		2,283
Tents ... ..	—		—		—		—	—		5,807

DRUGS.

As anticipated in last year's Report, the high level of prices was maintained during 1917.

TABLE LVI.—COMPARISON OF PRICES OF DRUGS.

DESCRIPTION.	Price in Milliemes.		
	1915	1916	1917
Aspirin ... .. per kilo.	915	6,000	2,463 <sup>1</sup> / <sub>2</sub>
Acid, boric ... .. "	035	043	067
Acid, carbolic ... .. "	126	280	280
Alcohol ... .. "	019 <sup>1</sup> / <sub>2</sub>	032 <sup>1</sup> / <sub>2</sub>	032 <sup>1</sup> / <sub>2</sub>
Bismuth carbonate ... .. "	1,251	1,950	1,597
Copper sulphate ... .. "	061	071	071
Glycerine ... .. "	110	148	115
Iodine, pure ... .. "	1,972	2,193	2,223
Magnesium sulphate ... .. "	009	020	029
Castor oil ... .. "	039	103	153
Turpentine ... .. "	089	079	158
Opium ... .. "	3,047	5,000	5,831
Potassium iodide ... .. "	1,422	2,240	1,680
Potassium bromide ... .. "	1,800	2,441	985
Quinine sulphate ... .. "	2,021	3,952	5,331
Sodium bicarbonate ... .. "	006	011	016
Vaseline... .. "	076	100	107
Sodium salicylate... .. "	577	2,490	1,133
Cod liver oil ... .. "	036	167	246
Iodoform ... .. "	2,660	2,405	2,655

Aspirin, potassium iodide, potassium bromide fell in price, while sulphate of quinine and cotton-wool almost doubled.

Preparations to the value of L.E. 5,504 were made in the Drug Store.

	L.E.
1915... ..	5,125.
1916... ..	4,933.
1917... ..	5,504.

Medicines to the value of L.E. 3,195 were sold in the various dispensaries of the Department, as against L.E. 2,963 for 1916.

The laboratory equipment for pharmaceutical preparations was increased by the addition of a new steam boiler of 130 litres capacity and of a new filling machine.

The new tablet machine turned out 260,000 tablets of quinine during the year.

The expansion of the Department is throwing an increasing strain on the Central Drug Store, whose staff is not adequate to cope efficiently with the large volume of work demanded of it.

To meet the deficiency, steps have been taken to abolish unqualified employees, such as dispensary servants, and replace them by properly qualified assistant druggists.

#### STORE TRANSACTIONS.

The following statistics cover the general work of the store-keeping and accounting offices for the Central Stores of the Department :—

	REQUISITIONS VOUCHERS.			
	Issued.		Stores received at Headquarters.	
	1916	1917	1916	1917.
Equipment ... ..	6,275	10,053	2,221	3,226
Drugs ... ..	3,322	3,830	540	507
Epidemic ... ..	2,433	—	1,182	—
Bûlâq Store ... ..	202	740	63	138
Surgical instruments ... ..	1,625	2,149	355	372
<i>Kohna</i> Store ... ..	3,459	4,922	2,050	2,712
Forage ... ..	145	172	119	172
Hygienic Institute ... ..	13	27	13	27
TOTAL ... ..	17,474	21,893	6,543	7,154

	1916	1917
Number of charges of permanent stores in the Department ...	250	255
Value of stores issued on payment :—	L.E.	L.E.
From General Stores ... ..	6,404	16,050
From Epidemic Store ... ..	769	425
Value of stocks on April 1, 1917 :—		
Instrument Store ... ..	4,563	5,198
Drug Store... ..	19,337	27,784
Equipment Store ... ..	22,294	40,875
<i>Kohna</i> Store ... ..	112	271
Bûlâq Auxiliary Store ... ..	—	8,611
	<u>47,306</u>	<u>82,739</u>

#### ORGANIZATION.

##### CENTRAL STORES.

*Stores :—*

(13 storekeepers, 45 storemen).

Equipment Permanent Store.	Surgical Instrument Store.
Equipment Consumable Store.	<i>Kohna</i> Store.
Drug Store.	Auxiliary Store.

*Ledger Section.*—Twelve clerks; sixty ledgers and journals are kept.

*Permanent Charge Section.*—Eight clerks, 238 ledgers. Two hundred and fifty-five permanent charges, 150 individual charges, 500 personal charges for uniforms.



*Supplies Section.*—Six clerks. One hundred and fifteen contracts and 1,844 orders were dealt with this year.

*Registration and Archives Office.*—Six clerks. 35,927 inward letters, including requisitions, and 9,265 outward letters (not including forms and vouchers) during the year.

*Correspondence and Personnel Office.*—Two clerks.

## STAFF.

The following increase of staff has been authorized :—

Sub-Director	...	...	...	...	...	...	...	...	...	1
<i>Employés</i> , 4th class	...	...	...	...	...	...	...	...	...	5
Assistant Pharmacist	...	...	...	...	...	...	...	...	...	1
Storekeeper, 4th class	...	...	...	...	...	...	...	...	...	1
Temporary clerks	...	...	...	...	...	...	...	...	...	2
Foremen, workshops	...	...	...	...	...	...	...	...	...	5
Shawîsh	...	...	...	...	...	...	...	...	...	1
Packer	...	...	...	...	...	...	...	...	...	1
Courrier	...	...	...	...	...	...	...	...	...	1

If the Stores Section is to keep pace with the expansion of the Department, further augmentation is necessary.

The staff is now as follows :—

## PENSIONABLE STAFF.

*Pensionable Staff* :—

Director of Stores	...	...	...	...	...	...	...	...	...	1
Sub-Director	...	...	...	...	...	...	...	...	...	1
Pharmacist, 3rd class	...	...	...	...	...	...	...	...	...	1
„ 4th class	...	...	...	...	...	...	...	...	...	2
Assistant Pharmacist	...	...	...	...	...	...	...	...	...	1
<i>Sous-Chef de Bureau</i>	...	...	...	...	...	...	...	...	...	1
<i>Employés</i> , 1st class	...	...	...	...	...	...	...	...	...	2
„ 2nd class	...	...	...	...	...	...	...	...	...	2
„ 3rd class	...	...	...	...	...	...	...	...	...	2
„ 4th class	...	...	...	...	...	...	...	...	...	19
Storekeepers, 1st class	...	...	...	...	...	...	...	...	...	1
„ 2nd class	...	...	...	...	...	...	...	...	...	1
„ 3rd class	...	...	...	...	...	...	...	...	...	4
„ 4th class	...	...	...	...	...	...	...	...	...	7
									—	45

Workshops :—

Chief Foremen	...	...	...	...	...	...	...	...	...	2
Clerk of Works	...	...	...	...	...	...	...	...	...	1
									—	3

*Temporary Staff* :—

<i>Employés</i> , temporary	...	...	...	...	...	...	...	...	...	12
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*Hors Cadre Staff* :—

Workmen, instruments' workshop	...	...	...	...	...	...	...	...	...	7
Carpenters' workshop	...	...	...	...	...	...	...	...	...	19
Blacksmiths' „	...	...	...	...	...	...	...	...	...	12
Tentmakers' „	...	...	...	...	...	...	...	...	...	9
Tinsmiths' „	...	...	...	...	...	...	...	...	...	4
Tailors' „	...	...	...	...	...	...	...	...	...	7
Painters' „	...	...	...	...	...	...	...	...	...	6
Dispensary servants	...	...	...	...	...	...	...	...	...	19
Drivers and syces	...	...	...	...	...	...	...	...	...	15
Storemen	...	...	...	...	...	...	...	...	...	45
									—	143
TOTAL	...	...								203

The chief difficulty is that of finding competent storekeepers, and the question resolves itself into two alternatives, namely, either to pay larger salaries for more competent storekeepers or augment the storekeeping staff to lighten their duties. The latter is probably the policy which will be ultimately followed.

*Inspection.*—The inspection of all units of the Department begun in 1916 was completed during the year by the Inspector of Stores.

The principle followed in these inspections is the instruction of storekeepers in their duties.

This is only effective locally, and, when successful, results in a distinct economy of correspondence and store transactions with the Central Stores. The improvement has been most marked, but it is an open question whether one inspector is sufficient for the needs of the Department.

WORKSHOPS.

A great increase of work was registered in the workshops for the year. The main items are given below.

The staff increased as follows :—

Workshop.	EMPLOYEES.	
	1916	1917
Instruments ... ..	8	7
Carpenters... ..	19	19
Blacksmiths ... ..	6	12
Tentmakers ... ..	5	9
Tinsmiths ... ..	3	4
Tailors ... ..	3	7
Painters ... ..	8	6
TOTAL ... ..	52	64

The budgetary grant was fixed at L.E. 4,030, of which L.E. 2,300 was spent in labour.

The policy of making aseptic furniture instead of procuring it from abroad has been continued with success. All autoclaves and water sterilizers have also been procured locally with good results. The fact that the above equipment can be made satisfactorily in Egypt has attracted the attention of other Departments, and also of the Sudan Government.

The number of orders dealt with was 3,149.

On examining the following tables of the main items turned out, the most striking feature is the diversity of the work required by the Department. As a rule, the time entailed by such orders in estimating costs and actual manufacture is not commensurate with the value of the articles, and in this respect the Department's workshops are at a great disadvantage compared with more homogeneous workshops with larger output.

INSTRUMENT-REPAIRING SHOP.

*Ophthalmic Section.*

Eye scalpels ... ..	1,901	Operation tables ... ..	2
Hypodermic needles... ..	386	Dressing tables ... ..	6
Eye forceps ... ..	25	Shelves for tables ... ..	20
Eye speculums ... ..	12	Perimeters ... ..	8
Eye scissors ... ..	97	Sterilizer forceps ... ..	5
Dressing scissors ... ..	26	Focussing lenses ... ..	3
Double spoons ... ..	10	Electric batteries ... ..	8
Microtome knives ... ..	19	Sterilizer lamps... ..	4
Stethoscopes ... ..	7	Diaphragms ... ..	70
Microscopes ... ..	5	Discs, lead ... ..	90,500



*General Instrument Repairs.*

Potain's aspirators ... ..	9	Trocars ... ..	18
Electric batteries ... ..	8	Bandage knives... ..	1,400
Catheters ... ..	36	Mincing knives ... ..	246
Scoops... ..	29	Lithotrites ... ..	5
Probes and directors ... ..	80	Evacuation app. ... ..	3
Artery forceps ... ..	280	Stethoscopes ... ..	14
Dressing forceps ... ..	254	Chloroform bottles ... ..	11
Bone forceps ... ..	42	Centrifuges ... ..	6
Eye forceps ... ..	25	Wheels, irr. stands ... ..	7
Midwifery forceps ... ..	18	Bandage machines ... ..	2
Tooth forceps ... ..	4	Stomach pumps... ..	1
Mouth gags ... ..	10	Hammers ... ..	15
Chisels ... ..	110	Ear speculas ... ..	2
Tonsillotomes ... ..	5	Pile clamps... ..	1
Hooks ... ..	8	Sterilizer lamps... ..	6
Amputation knives ... ..	100	Sand baths ... ..	1
Bistouries ... ..	102	Water pillows ... ..	10
Cartilage knives ... ..	124	Distilling app. ... ..	1
Scalpels ... ..	2,302	Somnoform app. ... ..	3
Eye scalpels ... ..	1,370	Chloroform masks ... ..	8
P.M. scalpels ... ..	215	Bone drill ... ..	1
Lancets ... ..	185	Drills for bone drill... ..	3
Hypodermic needles... ..	1,515	Spatulas ... ..	3
Suture needles ... ..	84	Extension app. ... ..	2
Razors... ..	352	Splints, iron ... ..	14
Retractors ... ..	5	Sponge holders ... ..	10
Amputation saws ... ..	32	Measures, tape ... ..	3
Finger saws ... ..	29	Thermo-cauteries ... ..	15
P.M. saws ... ..	32	Tracheotomy tubes ... ..	6
Scissors, curved... ..	642	Bronchitis kettles ... ..	3
Scissors, straight ... ..	1,188	Water machines... ..	2
Scissors, eye ... ..	112	Operation stools... ..	1
Scissors, P.M. ... ..	58	Hair clippers ... ..	2
Speculas, vaginal ... ..	61	Tourniquets ... ..	2
Eye speculums ... ..	12	Primus stoves, 1 burner... ..	224
Autoclaves ... ..	12	"    2    " ... ..	3
Instruments, sterilizers ... ..	12	"    3    " ... ..	1
Water sterilizers ... ..	3	"    4    " ... ..	5
Dressing drums... ..	26	Seals, copper ... ..	12
Brass syringes ... ..	33	Spirit monopole lamps ... ..	5
Hypodermic syringes ... ..	54	Table spirit lamps ... ..	9
Lachrymal syringes ... ..	3	Soldering lamps... ..	3
Dressing tables ... ..	9	Electric pocket lamps ... ..	10
Operation tables ... ..	9	Spirit stoves ... ..	6
Trolleys ... ..	2	Water baths ... ..	9
Trephines ... ..	15		

BLACKSMITHS' SHOP.

*New Work.*

Irrigator stands... ..	10	Operation chairs ... ..	10
Iron legs for beds ... ..	42	Handles, iron stretchers ... ..	8
Operation tables ... ..	8	Iron rods ... ..	56
Examination tables ... ..	16	Brackets for boards ... ..	25
Pail stands... ..	10	Brackets for stretchers ... ..	12
Pins for tents ... ..	87	Iron cylinders ... ..	17
Instrument stands ... ..	2	Hinges, iron ... ..	25
Hooks ... ..	405	Mills, coffee, roasting ... ..	4
Stands, iron, for shamsia... ..	68	Caps, iron ... ..	538
Brackets ... ..	18	Zir supports ... ..	11
Brackets for lamps ... ..	1	Pipes, iron ... ..	13
Hooks, iron ... ..	40	Dressing tables ... ..	1
Brackets, lantern ... ..	15	Angles, iron ... ..	367
Strainers, copper ... ..	10	Nails, iron ... ..	218
Splints ... ..	108		

*Repairs.*

Bedsteads, second class ... ..	1,238	Mills, coffee ... ..	2
Brass locks ... ..	3	Bedsteads ... ..	125
Caps, indiarubber ... ..	40	Bed ticket holders ... ..	333
Bedsteads, iron, babies ... ..	22	Operation chairs ... ..	29
Spirit lamp tubes ... ..	15	Hooks, iron... ..	92
Strainers, copper ... ..	11	Scrapers, iron ... ..	28
Cradles, bed ... ..	24	Taps, copper ... ..	18
Shears, garden ... ..	6	Barrels, large, G.I. ... ..	4
Rakes, garden ... ..	12	<i>Tesht</i> supports ... ..	18
Clips for files ... ..	4,039	Hose, <i>i.r.</i> , fittings ... ..	1
Barrels, iron ... ..	1	Tables, iron, folding... ..	82
Pipes ... ..	8	Machines for <i>crin végétal</i> ... ..	1
Tables, instrument ... ..	21	Dressing table ... ..	1
Wheelbarrows ... ..	3	Sterilizers ... ..	2
Bedsteads, first class... ..	66	Locks ... ..	174
Hinges, iron ... ..	242	Nails, screw, iron ... ..	277
Stands, iron, single ... ..	20	Trolleys ... ..	23
Merlin chairs ... ..	30	Iron rods for rat holes ... ..	102
Brackets ... ..	95	Fins, tin dust ... ..	18
Awning fittings ... ..	13	Carts, tent ... ..	63
Perforators... ..	5	Carts ... ..	34
Drums, cyllin ... ..	41	Wheel chairs ... ..	30
Latches ... ..	121	Stands, <i>zîrs</i> ... ..	18
Tanks ... ..	7	Filters, iron ... ..	13
Axes, iron ... ..	9	Cupboards ... ..	1
Ironing stoves ... ..	1	Wheels, iron ... ..	33
Stretchers ... ..	26	Copying press ... ..	1
Kitchen stoves ... ..	1		

CARPENTERS' SHOP.

*New Work.*

Tables, various ... ..	4	Sofas ... ..	2
Poles for doors, tent... ..	86	Poles, tent ... ..	159
Chests, ice ... ..	6	Splints... ..	396
Baskets, paper ... ..	8	Ladders, step ... ..	6
Holders, bed ticket ... ..	12	Packing cases ... ..	83
Cupboards, various ... ..	58	Plugs, wooden ... ..	200
Boxes, various ... ..	495	Chairs ... ..	25
Shelves, various... ..	20	Boards, various ... ..	287
Wooden covers for jars ... ..	170	Baskets, waste-paper ... ..	175
Screens ... ..	8	Wooden stands ... ..	126
Traps, rat, boxes ... ..	50	Crutches ... ..	197

*Repairs.*

Tables, various ... ..	87	Bedsteads ... ..	6
Stretchers ... ..	30	Boxes ... ..	566
Choppers ... ..	7	Carts ... ..	14
Chairs ... ..	253	Trays, coffee ... ..	23
Crutches ... ..	40	Poles, tent ... ..	10
Filters... ..	5	Sandals, wooden, pairs ... ..	90
Crates ... ..	2	Boards, various ... ..	9
Shovels ... ..	10	Ladders, step ... ..	4
Cupboards ... ..	78	Barrels ... ..	183
Chests, ice ... ..	23	Shelves ... ..	20
Wooden boxes, various ... ..	380	Safes, meat... ..	2
Screens ... ..	8	Baskets, waste-paper ... ..	12
Cases, packing ... ..	3,723	Doors ... ..	3
Machines, mincing ... ..	1	Floor, wooden, tent ... ..	56

TINSMITHS' SHOP.

*New Work.*

Lids, tin, for jars ... ..	101	Cases, tin ... ..	9
Meshes for wire mattresses ... ..	5,850	Boxes for keeping <i>i.r.</i> ... ..	4
Cutting panes of glass ... ..	550	Funnels ... ..	470
Sprays, zinc, for ironing ... ..	15	Pots, zinc ... ..	13
Baskets, wire, for tubes ... ..	6	Catchers, fly ... ..	53
Strainers, tin, for soup ... ..	2	Irrigators, zinc ... ..	60
Discs for marking keys ... ..	220		



*Repairs.*

Vermorels ... ..	145	Pots, e.w., for latrine ... ..	4
Formaline apparatus ... ..	41	Lamps, hospital pattern ... ..	45
Vermorel pipes ... ..	94	Lanterns for lamps ... ..	104
Ammonia apparatus ... ..	47	Stoves, paraffin ... ..	3
Vermorel nozzles ... ..	50	Lamps, hurricane ... ..	66
Nozzles ... ..	59	Lamps, table, paraffin ... ..	18
Water cans... ..	148	Candlesticks ... ..	58
Pails, i.g. ... ..	96	Pressers, potato... ..	6
Cans, tin, spirit ... ..	11	Soldering cyllin drums ... ..	242
Covers, latrine pail ... ..	5	Soldering tins ... ..	1,131
Lamps, spirit ... ..	107	Fitting glass panes ... ..	585
Bedsteads ... ..	26	Pannikin trays ... ..	6
Ice chest ... ..	47	Coffee cans... ..	12
Pans, copper ... ..	92	Strainers, tin, soup ... ..	26
Boards, tin, diet... ..	309	Zinc baths ... ..	21
Cans, milk ... ..	415	Letter box ... ..	4
Pots, zinc ... ..	24	Egg beaters ... ..	5
Traps, rat ... ..	184	Skimmers ... ..	16
Foot warmers ... ..	113	Ladles ... ..	9
Wire tying, 1 kilo ... ..	257		

PAINTERS' SHOP.

Tables, various ... ..	328	Sofas ... ..	30
Chairs, various ... ..	324	Boards, tin, diet... ..	295
Supports, various ... ..	166	Frames ... ..	17
Shelves, various... ..	17	Floor, wooden, tent ... ..	65
Cupboards, various ... ..	185	Carts, various ... ..	45
Boards, various ... ..	301	Armlets ... ..	102
Bedsteads, various ... ..	123	Fire pails ... ..	40
Screens, various ... ..	42	Tins, various ... ..	49
Splints ... ..	77	Paper baskets ... ..	12
Boxes ... ..	605	Chests, 7-drawer ... ..	5
Step ladders ... ..	37	Rakes, garden ... ..	25
Wooden baskets, various... ..	180	Bed rests ... ..	15
Bed ticket holders ... ..	700	Cradles, bed ... ..	24
Lanterns, various ... ..	154	Extension apparatus... ..	2
Machines, various ... ..	14	Filters... ..	15
Lettering cupboards, K.A.H.... ..	138	Zinc covers... ..	101
Barrels, various... ..	137	Cans, i.g. ... ..	308

1. Painting distilling room.
2. Painting steam engine.
3. Painting doors of Hôd el Marsûd.
4. Painting surgical instruments store.
5. Painting coal store.
6. Lettering Jedda mamûrîa.
7. Lettering bedsteads and doors of K.A.H.
8. Painting tables and bedsteads of Suez Hospital.
9. Painting tables and bedsteads of Benha Hospital.
10. Painting furniture of Shibîn el Kôm Hospital.
11. Painting furniture of Sisters' House, K.A.H.
12. Painting furniture of O.H., Zagazig.

TENTMAKERS' SHOP.

*New Work.*

Tents, two poles ... ..	38	Mattress cases ... ..	100
Tents, one pole ... ..	15	Mattresses, felt... ..	9
Shamsia, 2nd class tent ... ..	5	Sacks, disinfecting ... ..	91
Tents, 2nd class, with shamsia ... ..	19	Valises, tent ... ..	85
Pads for splints... ..	7	Rags, canvas, for travelling bed ... ..	22
Cushions for assiuti chair ... ..	2	Chairs, canvas ... ..	26
Pillows for dressing tables ... ..	5	Stools, canvas ... ..	26
Pillows, cotton, long... ..	72	Chairs for engineers ... ..	1
Cushions, chair ... ..	18	Chairs, upholstered ... ..	4
Pillows, sofa ... ..	14	Sofa ... ..	1
Pillows, examination table ... ..	7	Stretchers, canvas ... ..	48
Pillows, operation ... ..	6	Canvas, travelling bedstead ... ..	20
Back cushions ... ..	2	Covers, dressing-table ... ..	5
Chair cushions ... ..	2	Cover, weighing machine ... ..	1
Mattresses, cotton ... ..	682	Covers, tent, cart ... ..	6
Mattresses, sofa... ..	9	Covers, stretcher ... ..	1
Mattresses, cotton, ex. table ... ..	1	Bottles, zinc, felt-covered ... ..	48

*Repairs.*

Sacks, grain ... ..	90	Tents, 1st class ... ..	19
Sacks, tibn ... ..	15	„ operation... ..	1
Tents, 2nd class ... ..	19	„ three poles ... ..	6
„ 3rd class ... ..	47	„ various ... ..	13
„ two poles... ..	4	Bottles, zinc, felt-covered ... ..	1
„ one pole ... ..	12	Persian carpet ... ..	1
„ stable ... ..	2		

TAILORS' SHOP.

*New Work.*

Gallabias, orderlies' ... ..	427	Capes, red flannel ... ..	4
Bags, rat-trap ... ..	1,600	Gowns, red flannel ... ..	140
Shirts, various ... ..	374	Covers, screen ... ..	59
Shirts, babies' ... ..	19	Protectors, khaki ... ..	24
Aprons, 1st class ... ..	293	Curtains ... ..	6
Sheets ... ..	12	Towels ... ..	6
Tablecloths ... ..	69	Flag, hospital pattern ... ..	3
Mosquito nets ... ..	7	Covering, bottles, G.I. ... ..	68
Pillowslips ... ..	136	Overalls, mos. ... ..	6
Sofa covers... ..	33	Covers, foot-warmers ... ..	72
Haversacks, canvas ... ..	20	Uniforms, disinfectors ... ..	127
Drawers ... ..	40	Waistcoats ... ..	4
Nets, steam apparatus ... ..	12	Armlets ... ..	210
Patients' coats, red flannel ... ..	48		

*Repairs.*

Blankets ... ..	2	Waistcoats ... ..	2
Mosquito nets ... ..	2	Jackets ... ..	6
Gallabias ... ..	6	Suits, various ... ..	200
Shirts ... ..	23		



## X.—REPORT ON CAIRO SCAVENGING AND WATERING SERVICE.

### 1.—STREET AREA.

Extension of area in 1917 amounted to 43,395 square metres, of which 35,600 square metres were macadam roads and 7,795 square metres lanes paved with stone setts, bringing the total area of public roads under charge of the Service, at the end of the year, to 3,176,746 square metres.

A statement of areas and extensions for the last three years is appended :—

YEAR.	Area.	Extension during Year.
	Square Metres.	Square Metres.
1915 ... ..	3,121,079	25,525
1916 ... ..	3,133,351	12,272
1917 ... ..	3,176,746	43,395

Earth roads of the approximate area of 500,000 square metres (Tanzim figures) are included in the above figures. This area is scavenged as far as credits allow.

*Work on Private Account.*—In addition to the figures given above, the Service also operates on an area of 81,143 square metres of macadamized private roads, against payment, being no increase on the 1916 figure.

### 2.—WATER CONSUMPTION.

Tabular statement of net consumption by the Scavenging and Watering Service for the past three years :—

MONTH.	1915	1916	1917
	Cubic Metres.	Cubic Metres.	Cubic Metres.
January ... ..	15,514	18,300	15,606
February ... ..	19,924	18,608	31,666
March ... ..	34,566	39,577	50,888
April ... ..	48,293	67,387	63,587
May ... ..	53,709	73,301	64,007
June ... ..	76,517	85,497	71,295
July ... ..	71,689	78,868	77,580
August ... ..	75,378	74,965	73,123
September ... ..	62,516	71,477	66,872
October ... ..	51,598	50,641	52,064
November ... ..	38,458	33,885	39,016
December ... ..	27,386	27,303	25,529
TOTAL ... ..	575,548	639,809	631,233

*Rolling Stock.*—After deduction of condemned material, sales to Army or Government Departments, and inclusive of new material purchased, the strength of rolling stock, etc., on charge of the Service, was as below :—

	1915	1916	1917
Double water vans ... ..	78	80	80
Single water carts ... ..	77	89	94
Double dust vans ... ..	73	77	81
Single dust carts ... ..	208	203	213
Machine brushes ... ..	38	40	40
Trolley carts ... ..	13	13	13
Sewage carts ... ..	20	34	33
Hand carts ... ..	117	120	126
Dust bins ... ..	470	477	513
Steam pumps ... ..	3	1	3
Hand pumps ... ..	6	6	3

During 1917 two single water carts were sold to the Army authorities. In 1917 seven water carts were returned from the twelve carts sold to the Army in 1916.

Comparative prices of new rolling stock for the last three years are shown hereunder :—

	1915		1916		1917	
	L.E.	M.	L.E.	M.	L.E.	M.
Single dust carts ... ..	15	299	22	100	24	377
Double dust vans ... ..	67	767	73	454	85	163
Single water carts ... ..	23	540	34	100	40	359
Double water carts, cylindrical	81	—	98	450	157	595

Repairs were executed in Service workshops. New material was purchased from the Mechanical Department, Tura Prisons, and by adjudication.

*Harness.*—Made as usual at the Model Workshops. The prices were :—

	1915		1916		1917	
	L.E.	M.	L.E.	M.	L.E.	M.
Double harness ... ..	6	—	6	800	8	500
Single harness ... ..	4	600	5	200	5	200

Repairs were executed, as usual, in Service workshops.

TABULAR STATEMENT OF ANIMALS FOR THE LAST THREE YEARS.

	1915	1916	1917	
Animals cast :—				
Mules ... ..	37	80	40	Inclusive of animals taken for Army purposes or drafted to Provinces.
Horses ... ..	—	—	20	
Donkeys... ..	4	2	1	
	41	82	61	
Animals purchased :—				
Mules ... ..	84	73	13	Supplied gratis by Army.
Horses ... ..	—	—	32	
Donkeys... ..	—	3	—	
	84	76	45	
Strength at end of year :—				
Mules ... ..	547	540	513	
Horses ... ..	18	18	30	
Donkeys... ..	13	14	13	
	578	572	556*	

\* The shortage at the end of 1917 was not made good till beginning of 1918.

During 1917 no mules were available for purchase. In consequence, the Chief Veterinary Inspector, Ministry of Interior, arranged for the supply of cast army horses as required. These were supplied gratis, and have tided over the period of scarcity, but have not proved very successful, as it has been almost impossible to get them into good condition.

In November 1917 twenty mules were taken over by the Army for military purposes and replaced by cast Army horses in 1918.

Total of animal strength at the end of 1917 was :—

Mules... ..	513
Horses ... ..	30
Donkeys ... ..	13

Total ... 556, being below budgetary strength 36 animals.



*Buildings.*—No extension of stabling took place in 1917, as the Ministry of Finance refused to grant the credit applied for to build a masonry stable at Bab el Nasr.

*Bicycles.*—During 1917 no Scavenging and Watering Service bicycles were condemned but six additional bicycles were bought, as extension of reserve bicycles was found necessary.

During 1917 three Central Stores bicycles were struck off strength as past use and replaced, and no additional machines were bought, but eight additional machines were bought for the Provincial Offices of the Department in 1917.

Tabular statement of bicycle establishment in Cairo at end of:—

	1915	1916	1917
Scavenging and Watering Service..	60	61	67
Central Stores ... ..	52	53	53
TOTAL ... ..	112	114	120

Singer machines were still not available, and were replaced by the “ New Hudson ” model, and in certain cases, where these could not be supplied owing to war conditions, “ Raleigh ” type of bicycles was accepted, at the same rate, *viz.* L.E. 10·500 mill.

Average cost of repairs per bicycle per annum was :—

1915		1916		1917	
L.E.	M.	L.E.	M.	L.E.	M.
3	408	5	094	4	483

3.—FORAGE.

*Tibn.*—Supplied, as in the previous year, direct from the Domains Administration.

*Barley.*—Supply of this was arranged by the Chief Veterinary Inspector, and came partly from the Domains Administration and partly from the Supplies Department, Egyptian Army; but barley from the latter source had to be cleaned here before issue, and, owing to scarcity, supply was irregular and difficult.

*Bran.*—Supplied from Tura mills, Egyptian Army, as usual.

*Straw.*—Supplied by a contractor after a public adjudication.

*Bersîm.*—Supplied by a contractor after a public adjudication.

							PRICES.					
							1915		1916		1917	
							L.E.	M.	L.E.	M.	L.E.	M.
Barley	...	...	...	...	...	...	8	301	9	094	9	576
Bran...	...	...	...	...	...	...	5	910	5	910	6	261
Tibn...	...	...	...	...	...	...	3	—	2	380	2	380
Straw	...	...	...	...	...	...	1	350	1	100	1	280
Bersîm	...	...	...	...	...	...	0	033	0	027	0	035

per ton of 1,000 kilos.

per qantâr of 100 rotls.

*Shoeing.*—Average cost per set per month:—

1915		1916		1917	
L.E.	M.	L.E.	M.	L.E.	M.
0	059	0	087	0	102

The increase in 1917 was due to increased cost of iron and coal.

*Refuse Disposal.*—There was no change in the method of disposal of this during 1917, and the refuse dumps were not increased in number, but the Husseinia was abandoned in favour of a new site at Abbasiya at the request of the Tanzim.

The following are the details of the disposal of refuse in 1917, average daily output :—

NAME.	Single Dust Cart. 1 c.m. Capacity.	Double Dust Van. 2 c.m.s. Capacity.
Madbah ... ..	117	65
Shanawâni... ..	65	—
Gîza ... ..	8	41
Abbâsiya ... ..	100	37
Shubra ... ..	30	3
Imbâba ... ..	45	—
Matarîa ... ..	55	—
TOTAL ... ..	420	146

In addition, 144 single dust cart loads were delivered daily to fifty-nine native baths, against payment, and thirty tons of rubbish were daily burnt at the destructor.

Reckoning a cartload of one cubic metre as about one-third ton weight, the total daily output was in 1917 :—

Tipping ... ..	237 tons.
Native baths ... ..	48 „
Destroyed at destructor ... ..	30 „
TOTAL ... ..	315 tons.

or, for the whole year, 114,975 tons.

TABULAR STATEMENT OF RUBBISH OUTPUT FOR THE LAST THREE YEARS.

	1915	1916	1917
	Tons.	Tons.	Tons.
Tipping ... ..	54,020	72,468	86,505
Native Baths ... ..	20,440	18,666	17,520
Destructor ... ..	10,950	10,980	10,950
TOTAL ... ..	85,410	102,114	114,975

The whole question of refuse disposal is becoming more serious every year, as the present dumps are becoming very congested, and when these sites are entirely full new sites must be selected further afield, entailing an increase of staff of men, carts, and animals and stabling in order to cope with the longer distances. In this connection I suggest obtaining, after the war, motor lorries which could remove the refuse from one or two tips near the town and transport it to some more distant site in the desert, where it could be dumped without causing a nuisance or be in the way of town extension. This would save the expense of extra staff and stabling, and would be, in my opinion, an altogether cheaper and more efficient method of disposal.

*Drainage Transport Service.*—There has been extension of this in 1917 of five carts, mules, and harness.

*Municipal Supplies Service.*—During 1917 the credit for this work (L.E. 3,000) was exceeded by L.E. 2,007, owing partly to higher cost of material and partly to extra materials demanded by some of the Municipalities and Local Commissions.

*Stables.*—The Abul Ela stable belonging to this Service was still retained in 1917 by the Army, and, in consequence, stabling accommodation for the Service remained limited.



*Work for Army Account.*—This continued as in 1916, refuse being removed from the same offices in Cairo, against payment, the Army loaning a pair of mules, which were fed and maintained by the Service.

*Destructor.*—Annual upkeep, inclusive of screening, was :—

1915	1916	1917
L.E.	L.E.	L.E.
1,268 .	1,247	1,257

Average cost per day, inclusive of non-working periods, was :—

1915	1916	1917
L.E. M.	L.E. M.	L.E. M.
3 474	3 417	3 445

*Upkeep of Taps.*—The following was the expenditure under this head in :—

1915	1916	1917
L.E.	L.E.	L.E.
367	395	499

The increase in 1917 was due to the increased cost of material.

*Daily-Paid Labour.*—

	1915	1916	1917
Drivers :—			
Water Cart ... ..	114	120	141
Dust Cart ... ..	334	349	356
Sweepers ... ..	510	595	610
Miscellaneous ... ..	75	82	58
TOTAL ... ..	1,033	1,146	1,165

Owing to the difficulty of obtaining suitable drivers, due to the competition of the Egyptian Labour Corps and Army demands for native labour, the pay of drivers was in 1917 raised from 50 milliemes per day to 60 milliemes for single mule carters, and from 60 milliemes to 70 milliemes for double mule carters. This involved an increase of the labour chapter of L.E. 799.

XI.—GENERAL.

1.—BUDGET.

The Budget for the year April 1, 1917, to March 31, 1918, was fixed at ...	L.E.	459,866
That for 1916 was fixed at ... .. .	„	385,281
Showing an increase of ... .. .	„	74,585

TABLE LVII.—Two YEARS COMPARATIVE BUDGETS.

	1917	1916	Increase.	Decrease.
	L.E.	L.E.	L.E.	L.E.
CHAPTER I.—CENTRAL SERVICES, INSPECTORATES, HOSPITALS, ETC.				
Art. 1. Salaries, wages, and allowances...	188,009	176,576	11,423	—
„ 2. Transport, transfers, and travelling allowances ... ..	15,104	15,234	—	130
„ 3. Food ... ..	33,402	30,926	2,566	—
„ 4. Forage ... ..	924	882	42	—
„ 5. Rent, water, light, and disposal of sewage ... ..	18,351	14,140	4,211	—
„ 6. Books and periodicals ... ..	403	403	—	—
„ 7. Telephones and telegrams ... ..	1,453	1,243	210	—
„ 8. Petty expenses... ..	3,579	3,371	208	—
„ 9. Purchase of animals ... ..	904	1,040	—	136
„ 10. Free water fountains ... ..	3,000	3,000	—	—
„ 11. Stores... ..	96,915	51,525	45,390	—
„ 12. Uniforms ... ..	929	720	209	—
„ 13. Upkeep of material and equipment	4,030	1,661	2,369	—
„ 14. Upkeep of motor cars ... ..	926	450	476	—
„ 15. Supplies to Provincial Councils ...	3,200	2,500	700	—
„ 16. Allowances to sanitary barbers ...	600	1,200	—	600
„ 17. Upkeep of buildings ... ..	5,976	5,919	57	—
„ 18. Alterations to buildings ... ..	800	800	—	—
„ 19. Disinfecting ships at the ports ...	6,000	4,800	1,200	—
„ 20. Maintenance of temporary lazarets at Gabbari... ..	4,560	4,560	—	—
„ 21. Experimental work at the institutes	300	300	—	—
„ 22. Sanitary improvements in mosques	2,500	—	2,500	—
„ 23. New Works ... ..	16,187	24,840	—	8,653
Carried forward... ..	408,142	346,090	71,571	9,519



TABLE LVII—(continued).

	1917	1916	Increase.	Decrease.
	L.E.	L.E.	L.E.	L.E.
<i>Brought forward...</i> ...	408,142	346,090	71,571	9,519
CHAPTER II.—SCAVENGING AND WATERING SERVICE.				
Art. 24. Salaries, wages, and allowances ...	27,708	23,579	4,129	—
„ 25. Uniforms ... ..	396	450	—	54
„ 26. Forage and shoeing... ..	12,114	11,424	690	—
„ 27. Water ... ..	5,972	5,913	59	—
„ 28. Lighting and disposal of sewage ...	100	205	—	105
„ 29. Upkeep and repairs to plant and material ... ..	2,270	2,270	—	—
„ 30. Material ... ..	7,430	5,608	1,822	—
„ 31. Stores, etc., sold to Municipalities and Local Commissions ... ..	3,000	3,000	—	—
„ 32. Telephones and telegrams ... ..	60	60	—	—
„ 33. Petty expenses... ..	100	100	—	—
„ 34. Purchase of animals ... ..	1,073	1,096	—	23
„ 35. Upkeep of gullies ... ..	1,705	1,460	245	—
	61,928	55,165	6,945	182
	470,070	401,255	78,516	9,701
To deduct :				
Recoveries of services rendered ... ..	10,204	15,974	5,770	—
TOTAL ... ..	†459,866	*385,281	84,286	9,701
Net increase ... ..	—	—	74,585	

* Original grant ... ..	L.E.
	385,449
Deduct :—	
By transfer to the Ministry of the Interior ... ..	168
	385,281
† Original credit... ..	459,866
To add : Supplementary credits ... ..	L.E.
	4,500
To deduct :—	
Transferred to Frontier Districts Administration ... ..	3,302
	1,198
TOTAL... ..	461,064
Total expenditure... ..	415,082
ECONOMY... ..	45,982

Further provision for the cost of services rendered to this Department has been made in the budgets of the following Departments :—

	1917	1916
	L.E.	L.E.
Ministry of Finance (Stationery Office) ... ..	1,540	1,540
„ „ (Post Office)... ..	1,971	1,972
„ „ (Customs) ... ..	550	550
Provinces and Governorates (Police) ... ..	228	228
Pensions ... ..	12,476	11,961
TOTAL ... ..	16,765	16,071

TABLE LVIII.—NEW WORKS.

	1917	Expended.
	L.E.	L.E.
Purchase of 4 mules and 2 carts for Cairo Inspectorate ... ..	302	—
„ of 1 motor car and 7 motor bicycles for the Epidemic Section ...	725	793
Fitting up provincial plague stores ... ..	500	443
Construction of a store and a motor garage for 2 motor ambulances at Abbasiya Infectious Hospital ... ..	660	487
Completion of work at Alexandria Hospital and purchase of utensils ... ..	319	285
New verandah for out-patients and making roads in grounds at Alexandria Hospital ... ..	1,140	1,081
Completion of building for sisters at Alexandria Hospital ... ..	91	79
Extension of Abbasiya Infectious Hospital ... ..	2,300	137
Purchase of a new hot-water boiler and 2 new washing machines at Qasr el Aini Hospital ... ..	270	—
Equipment for the Suez Hospital Laboratory ... ..	50	—
Repairs at Hôd el Marsûd Hospital ... ..	3,500	3,454
Vaccine Institute equipment ... ..	100	—
Hygienic Institute accommodation ... ..	250	—
Initial cost of scavenging and watering new roads ... ..	208	92
Prophylactic measures against ankylostoma ... ..	500	166
Prophylactic measures against cholera ... ..	3,772	2,195
Construction of a second storey for accommodation of inventory clerks in the Central Stores... ..	1,500	1,060
Equipment, Sohag Ophthalmic Hospital ... ..	—	12
Conversion of boiler at Qasr el Aini Hospital ... ..	—	70
Equipment, Shibîn el Kôm Ophthalmic Hospital ... ..	—	41
Equipment, Minya Ophthalmic Hospital ... ..	—	18
TOTAL ... ..	16,187	10,413



2.—STAFF.

TABLE LIX.—PERMANENT EMPLOYEES.

CATEGORY.	1917	1916	CATEGORY.	1917	1916
<b>Technical.</b>			<i>Brought forward</i> ...	283	175
Director-General... ..	1	1	Midwives ... ..	44	44
Assistant Director-General... ..	1	1	Director of Stores ... ..	1	1
Directors of Sections ... ..	4	3	Chief Inspector of Pharmacies ...	1	1
President, Medical Commission ...	1	1	Assistant Inspector of Pharmacies ...	2	1
Inspector, Cairo City ... ..	1	1	Pharmacists, 3rd class ... ..	4	4
* Inspectors (special class) ... ..	2	2	„ 4th „ ... ..	15	14
Divisional Inspectors ... ..	7	7	Assistant Pharmacists ... ..	5	5
Sub-Directors of Sections ... ..	3	2	Chief Inspector, Scavenging and Watering Service ... ..	1	1
Vice-President Medical Commission...	1	1	Inspector, Scavenging and Watering Service ... ..	1	1
Inspectress ... ..	1	1	Assistant Inspector, Scavenging and Watering Service ... ..	1	1
Inspectors, 2nd class ... ..	6	7	Inspector ... ..	1	1
„ 3rd „ ... ..	19	18			
Sanitary Engineer, 1st class ... ..	1	1			
„ „ 2nd „ ... ..	1	1			
„ „ 3rd „ ... ..	2	1			
Director of Technical Institutes... ..	1	1	<b>Clerical.</b>		
Bacteriologist, 1st class ... ..	1	1	Directors of Service ... ..	2	2
Bacteriologists, 2nd „ ... ..	2	2	Sub-Directors of Service ... ..	2	2
„ 3rd „ ... ..	2	2	Chefs de Bureau... ..	2	2
Assistant Bacteriologists ... ..	6	4	Sous-Chefs de Bureau ... ..	4	4
Chemists, 2nd „ ... ..	2	2	Employees, 1st class ... ..	10	9
„ 3rd „ ... ..	2	2	„ 2nd „ ... ..	18	18
Assistant Chemists ... ..	2	2	„ 3rd „ ... ..	38	32
Director, Alexandria Hospital ... ..	1	1	„ 4th „ ... ..	130	125
Sub-Director of Hospital ... ..	1	—	Chief Storekeeper ... ..	1	1
Medical Officers, 1st class... ..	1	1	Storekeepers, 2nd class ... ..	2	2
„ „ 2nd „ ... ..	3	4	„ 3rd „ ... ..	3	2
„ „ 3rd „ ... ..	8	8	„ 4th „ ... ..	11	8
„ „ 4th „ { Cat. A... 22 23					
„ „ „ { „ B... 178 174					
<i>Carried forward</i> ...	283	175	<b>TOTAL</b> ... ..	582	556

TABLE LX.—TEMPORARY EMPLOYEES.

CATEGORY.	1917	1916	CATEGORY.	1917	1916
			<i>Brought forward</i> ...	275	291
Medical Officers ... ..	45	42	Works foremen ... ..	2	2
Inspectors (Epidemics) ... ..	4	4	Mechanic ... ..	1	1
Inspector (Stores) ... ..	—	1	Meter inspector ... ..	1	1
Engineers ... ..	6	5	Stable masters ... ..	2	3
Matrons ... ..	3	3	Director, Antirabic Institute ... ..	1	1
Nursing Sisters ... ..	25	24	Storekeepers ... ..	19	17
Assistant, Laboratory, 1st class ... ..	—	1	Inspector, Provincial Clerks ... ..	1	—
Clerks ... ..	192	211	Midwives ... ..	3	—
<i>Carried forward</i> ...	275	291	TOTAL ... ..	305	316

TABLE LXI.—HORS CADRE EMPLOYEES ENGAGED IN 1917.

CATEGORY.	1917	1916	CATEGORY.	1917	1916
			<i>Brought forward</i> ...	581	547
Chief attendants ... ..	79	77	Cooks ... ..	47	45
Male „ ... ..	314	279	Printers ... ..	3	3
Female „ ... ..	126	128	Overseers ... ..	31	31
Assistants, Laboratory, 2nd class ... ..	5	5	<i>Moawens</i> ... ..	23	20
„ „ 3rd „ ... ..	6	5	Sanitary Barbers ... ..	16	173
„ „ 4th „ ... ..	9	9	Mechanics ... ..	1	1
Disinfectors, 1st class ... ..	12	12	Various categories ... ..	932	800
„ 2nd „ ... ..	30	32			
<i>Carried forward</i> ...	581	547	TOTAL ... ..	1,634	1,620

3.—AUTHORIZATIONS TO PRACTISE THE MEDICAL  
AND ALLIED PROFESSIONS.

TABLE LXII.

PROFESSION.	NATIONALITY.											TOTAL.
	Local Subjects.	Ottomans.	British.	French.	Greek.	Italian.	German.	Austrian.	American.	Persian.	Russian.	
Medical ... ..	47	2	1	—	—	—	—	—	—	—	—	50
Veterinary ... ..	7	—	—	—	—	—	—	—	—	—	—	7
Midwifery ... ..	8	—	1	—	1	1	—	—	—	—	2	13
Dentistry ... ..	1	—	1	—	—	—	—	—	—	—	—	2
Pharmacy ... ..	9	1	—	—	1	—	—	—	—	—	—	11
Aides-Pharmaciens ... ..	—	—	—	—	—	—	—	—	—	—	—	—

4.—LEGAL.

The following enactments, bearing on the work of the Department, were published in 1917 :—

(1) Two *arrêtés* making additions to the list of “Etablissements Incommodes, Insalubres et Dangereux,” Class I, Category A :—

(a) *Arrêté* of January 3, 1917, *re* cold storage establishments.

(b) *Arrêté* of November 20, 1917, *re* establishments for the preparation and the conservation of fish other than *fissikh*.

Law No. 9, 1917 : Modification of Art. 5, Decree of December 17, 1890, *re* vaccination.

Law No. 10, 1917 : Enacting certain prophylactic measures against cholera.



TABLE LXIII.—CONTRAVENTIONS AGAINST PUBLIC HEALTH LAWS.

NAME OF LAW.	Cairo.	Port Said.	Ismailia.	Damietta.	Suez.	Giza.	Fayûm.	Beni Suef.	Minia.	Asyût.	Girga.	Qena.	Aswân.	Qalyûbiya.	Gharbiya.	Minufiya.	Sharqia.	Dagahliya.	Behetra.	TOTAL. 1917	TOTAL 1916	
<i>Vidange and dépotoirs. Arrêté of November 8, 1886, modified by Arrêté of June 2, 1910 ... ..</i>	406	101	—	—	—	2	—	—	—	1	—	—	—	4	32	2	—	68	8	—	624	422
<i>Practice of medicine. Arrêté of June 13, 1891 ... ..</i>	31	1	1	—	—	4	2	1	6	5	3	1	—	6	12	26	8	10	6	—	123	196
<i>Vaccination. Decree of December 17, 1890, modified by Decree of August 6, 1897... ..</i>	194	17	14	9	—	66	86	29	111	159	126	145	15	41	350	74	93	127	179	—	1,835	1,616
<i>Enclosure of waste lands. Arrêté of June 15, 1893 ... ..</i>	11	—	—	—	—	—	—	2	—	1	5	—	—	—	2	—	—	5	—	—	26	56
CEMETERIES:—																						
<i>Inhumation, exhumation, and transport of bodies abroad. Regulations, approved by Conseil Sanitaire International, of September 15, 1876, and March 26 and October 30, 1877 ... ..</i>	—	—	—	—	—	14	—	1	—	22	—	—	—	—	—	—	—	1	—	—	38	8
<i>Transfer of cemeteries. Decree of January 29, 1894</i>	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	2	2
<i>Enclosure of cemeteries: unauthorized inhumation. Decree of March 12, 1898 ... ..</i>	—	—	—	1	—	—	11	—	—	5	—	—	—	—	51	9	—	—	—	—	77	136
PROPHYLACTIC MEASURES:—																						
<i>Permanent and exceptional measures to prevent epidemics. Arrêtés of May 11, 1895, and December 19, 1904</i>	—	—	—	—	—	1	—	—	—	—	4	—	4	1	—	—	—	—	—	—	10	79
<i>Oysters and shell-fish during epidemics. Arrêté of June 16, 1912 ... ..</i>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Cholera. Arrêté of October 17, 1895, and supplementary Arrêté of May 30, 1896 ... ..</i>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
<i>Plague and cholera. Decree of May 27, 1899, modified by Laws No. 3 of February 16, 1911, and No. 10 of April 27, 1913 ... ..</i>	—	—	—	—	36	—	16	1	1	—	—	4	—	—	—	—	—	—	—	—	58	155
<i>Disinfection of houses during epidemics. Arrêtés of May 23 and June 26, 1901 ... ..</i>	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1
<i>Passenger control in case of cholera abroad. Arrêté of January 21, 1911 ... ..</i>	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	2	3	—	—	9	13

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